Clinical Lecture
ON
A CASE OF SUPPOSED DISEASE OF THE PONS VAROLII.

Delivered in the Royal Infirmary of Glasgow,

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GENTLEMEN,—The case which I have to bring under your notice to-day, although rare, is one which in its surroundings has much that is interesting in connexion with every-day practice. The following is the history which was given by the patient at the date of her admission on August 7th, 1873:—Her father died, at the age of forty-six, of typhus fever; her mother at forty-eight, of heart disease. She has one sister and two brothers alive and well, and another brother who has been ill for some years, although she cannot tell the nature of his complaint. She is twenty-three years of age, and by occupation a spinner.

Prior to the commencement of her present illness she seems always to have enjoyed good health, although her bowels have been habitually costive, and her menstruation, which made its appearance at the age of seventeen years and a half, has never been very regular, six or eight weeks sometimes intervening between the periods. About two years ago she began to complain of headache, which was limited to the left side of the head, and which has continued ever since. The pain is spoken of as being of a "beating" character. It is more or less constantly present, but becomes aggravated at times, especially in the forenoon. It is particularly severe in the left supraorbital region. Within the last six weeks the headache has been accompanied by giddiness, especially when the pain was severe; so that her gait at these times was unsteady, and she felt as if she was going to fall.

About seven weeks prior to admission she began to complain of a "prickling" soreness along the left margin of the tongue, which was increased by eating, and she had great difficulty in pronouncing words. There was also impairment of the sense of taste to a certain extent; for although she could distinguish between sweet things and bitter, &c., food tasted differently from what it had previously done, though in what the difference consisted she could not explain. In a day or two after the tongue become sore she says she felt a few hard lumps along its left edge, each being about the size of a pea, and very painful to the touch. They disappeared in about three days. As the symptoms referable to the tongue began to abate the vision of the left eye became somewhat impaired, and she often fancied that she saw things on the floor which were not present. At first the eyeball was bloodshot to a marked degree, but in a few days the congestion passed off and has not returned. At the same time as the eye became affected—i. e., five weeks before admission—the left cheek became stiff, swollen, and painful, and gradually became paralysed, and she observed that she could not close her left eye and that her mouth was drawn to the right side. The sense of hearing was not affected. About two weeks after this the patient experienced a feeling of "numbness and coldness" in the left shoulder, which gradually spread down the limb, and was followed by weakness, so that she was unable to hold anything in the hand. Immediately afterwards the left leg became similarly affected, and subsequently the right leg also. The paralysis of the lower extremities, too, was only partial, as she could walk, though her gait was unsteady and there was a tendency to dragging of the feet. Finally, five days ago, whilst resting her head upon her right hand, a sharp pain was suddenly experienced in her right shoulder, and spread down the arm to the fingers, causing it to drop on the table. The pain passed off in about a minute, but was followed by a feeling of coldness and numbness and by partial loss of power. She has also had "prickling" pains in the arm at intervals, but no involuntary twitchings. About four months prior to admission the patient received a violent blow upon the head, over the left eyebrow, which caused her to have a strange sensation in the left side of the upper part of the head for eight or nine days; but from this she recovered perfectly.

On admission, her general health was good; the affection of the tongue and left eye had disappeared, but the paralysis of the left side of the face and the semi-paralytic condition of the arms and legs continued. The sensation of touch and of temperature were unimpaired; but in the left leg the sense of pain was below par. The tongue was protruded in the middle line, but the uvula was distinctly carried to the right side. The left cheek was slightly swollen and without expression, her mouth was carried to the right side in laughing, and she was quite unable to whistle or to close her left eye.

Here, then, is a strange and unusual array of threatening and apparently unassociated symptoms, and in connexion with them it shall be our endeavour to make out, first, the seat of the disease, and, second, the nature of the disease.

1st. *The seat of the disease.*—A prominent feature in the case is paralysis of the left side of the face, due to paralysis of the seventh nerve. [Dr. Anderson here pointed out that the seventh nerve is involved: first, because the patient cannot close the eye on the affected side; second, because the buccinator muscle is paralysed, as shown by the inability to perform certain movements on the affected side—e. g., the act of blowing, getting back into the cavity of the mouth food lodged between the gums and cheek, &c.; third, because the tongue is not protruded to the affected side; and, fourth, because the muscles do not respond to the electric current.] Now, paralysis of the seventh nerve may be due to either central or peripheral causes. It is usually peripheral, and then, if not traumatic, it is generally due either to exposure to cold, or to disease of the middle ear. The following case is a good illustration, although a rare one, of paralysis of the portio dura nerve in connexion with disease of the middle ear.

C. L——, aged thirty-seven, of average general health, consulted me on the 8th April, 1863. She informed me that about a month previously (10th March) she went to witness the review on Glasgow-green in honour of the marriage of the Prince of Wales. She was stooping down to raise her child from the ground, when a cannon was fired about a hundred yards (she said) from her, the right ear being directed towards it. Immediately deafness supervened on that side, and she was sensible of tinnitus, which she described as being "like the rush of distant water," and which still continued when I saw her. About two weeks after the accident she observed that when she spoke her mouth was drawn to the left side, and she was unable to close the right eye.

On examination, I found that the paralysis of the right side of the face was complete, and that the tongue, when protruded, was drawn apparently towards the right side. The hearing on the left side was perfect; on the right the watch was inaudible, either when placed on the temple or pressed against the ear. On inspecting the right ear, the meatus was quite natural, but the drum was slightly milky-looking, and rather more concave than natural, although the triangular bright spot passing downwards and forwards from the point of the handle of the malleus was well defined. On the posterior segment of the drum, parallel to the handle of the malleus, commencing on a level with the middle of it and extending a little way below it, a white ragged line was observed which had all the appearance of a cicatrix. The Eustachian tube was nearly impervious. The patient had experienced no pain in the ear at all, nor was the system apparently affected in any way. The prognosis which I noted down at the time was—Favourable as regards the paralysis; as regards the deafness, slight improvement to be expected; as regards complete recovery of the hearing, unfavourable; and as regards the tinnitus, doubtful. She was ordered to apply two leeches to the orifice of the meatus, and to take three calomel-and-opium pills daily, each pill containing two grains of calomel and one-third of a grain of opium.

On the 13th April the following was the report:—Leeches bled well; gums unaffected; paralysis as before; watch

heard on pressing it firmly against the ear, and distinctly audible when placed on the temple, though not so much so as on the left. The following ointment to be rubbed on the right cheek in front of the ear, morning and evening:—Croton oil, half a drachm; antimonial ointment, one ounce.

On the 20th the watch was still more distinctly audible on the temple, and was heard at the distance of one inch from the ear. Paralysis slightly improved, especially as regards the closing of the eye. Ointment omitted. A fly blister, two and a half inches square, to be applied immediately in front of the ear.

On the 29th the following report was made:—Watch nearly as audible on the right as on the left temple, and heard at a distance of three inches from the ear; paralysis decidedly less in every respect; tinnitus not quite so loud; drum less opaque. Gums never decidedly affected, though the right cheek is indented by the teeth and slightly ulcerated. The blister to be repeated, and a tablespoonful of the following mixture to be taken twice daily:—Iodide of potassium, half an ounce; infusion of quassia, twelve ounces. The pills were discontinued.

On the 6th May, a month from the date of her first visit, the paralysis was almost gone; the watch was heard six inches from the ear; the tinnitus remained as on the 29th April; and the drum, though less opaque than at the first visit, was still muddy.

She was recommended to continue the iodide-of-potassium mixture, and to return, which, however, she never did, so that I am unfortunately unacquainted with the ultimate issue of the case. I had intended to have endeavoured to overcome the obstruction of the Eustachian tubes by means of the catheter, with the hope of thereby improving still further the hearing power and of diminishing the tinnitus.

This case is worthy of being recorded, because, as far as my experience and reading go, I have never met with a similar one. That cases of deafness suddenly produced by loud noises are of frequent occurrence no one can deny, and we are all conversant with the supervention of paralysis in consequence of inflammation of the tympanic cavity; but I know of no other case in which there was a combination of these two sets of symptoms. It will be useful, therefore, to inquire into the nature of the case. There can be no doubt that the shock produced by the report of the cannon caused an immediate injury to the ear; and one can have little hesitation, judging from what we know to be the usual cause of deafness from concussion, in affirming that some injury was done to the nervous apparatus in the internal ear. But, unfortunately, sufficient opportunity has not yet been afforded for ascertaining the exact form of injury which is produced in these cases. It is to be hoped, however, that, as the diseases of the ear come to be more carefully studied by the profession, this point may be satisfactorily elucidated.

But, in addition to the injury inflicted upon the internal ear, I have no doubt that a rupture of the drum took place at the moment of the discharge of the gun, for this is by no means a rare result of loud noises, and, besides, it would satisfactorily account for the very distinct cicatrix which was noted at the first visit of the patient on the posterior segment of the drum, and likewise for the subsequent symptoms. I have thus endeavoured to account for the sudden tinnitus and loss of hearing and for the cicatricial appearance of the drum, but how can the paralysis be accounted for? The explanation I give of it is this:—The injury done to the drum and other structures in the middle ear excited a chronic inflammation of the mucous membrane of the cavity of the tympanum, unaccompanied, as is so often the case, by any appreciable pain. Hence the opaque appearance of the drum when the patient first came under my observation, and the partial obstruction of the tympanic orifice of the Eustachian tube. As this inflammatory condition proceeded, it extended to the aqueduct of Fallopius, as we observe in many uncomplicated cases of tympanitis; and, the portio dura nerve in this canal becoming implicated, paralysis of the right side of the face supervened.

The object of the treatment was to allay this inflammatory condition, and the result was as satisfactory as could be expected under the circumstances.

In the case under discussion to-day there is reason to believe that the paralysis of the portio dura is central—first, on account of the absence of the usual causes of peripheral paralysis; and, second, on account of the accompanying paralysis of the limbs. Now, central disease of the portio dura nerve generally points to disease of the pons Varolii. The following case, reported by Dr. James Russell,* and which was marked by many of the symptoms present in our patient, illustrates this point.

A lady, aged forty-two, whom Dr. Russell saw on Oct. 22nd, 1868, along with Mr. Hickenbotham, became, in May, 1867, suddenly insensible and had convulsive movements of the left side. The left side of the face also was "drawn." She perfectly regained consciousness, but remained with imperfect paralysis of the left limbs and of all the muscles supplied by the right portio dura, the tongue deviating to the left side. Three or four days after her seizure the right eye became much congested and swollen, and continued so for three days, there being neither prominence of the globe nor lachrymation, nor apparently any alteration of the pupil. These attacks of congestion of the right eye frequently recurred, and once the left eye was similarly affected. In the first week of December Mr. Hickenbotham was suddenly summoned to her, and found her speechless, but quite conscious, earnestly endeavouring to form words. A few hours afterwards she was quite unconscious, and died within twenty-four hours of her seizure.

At the autopsy, "a narrow, irregular slit was found to exist at the upper part of the right side of the pons, about one-third of an inch in length. Close to it, possibly communicating with it, were two small passages, about half a line wide and twice that length, burrowing across the septum of the pons. There was a faint yellow staining in the surrounding tissue. The tissue of the pons was firm, and there did not appear any wasting of the right half. The medulla oblongata and the crura were healthy. The root of the seventh nerve was not lessened in bulk. The right central ventricle contained about an ounce and a half of loose fresh coagulum. The outer half of the corpus striatum and thalamus and the central tissue enclosing the ventricle on the other side were broken down, converting the ventricle into a large irregular cavity. The septum lucidum was preserved, and the left ventricle contained only some clear colourless fluid. The arteries at the base of the brain were unusually stiff and patulous; both the trunks and the primary branches were spotted with thickened patches, very visible in their interior aspect. In all other respects the brain and its membranes were healthy."

In this instance the symptoms present in our patient were observed, with the exception of the affection of the tongue and of the paralysis of the extremities of *both sides*.† How, then, can we account for the affection of the tongue? Let me, first of all, read you a case of facial paralysis, accompanied by implication of the tongue, reported by Dr. Bazire.‡

W. M——, aged forty-eight, an instrument manufacturer, who works habitually in a cold damp place, applied as an out-patient to the hospital on March 25th, 1867. He stated that seventeen days previously he had noticed that the left side of his face was completely paralysed, and added that for two or three days before this he had a sensation, confined to the left half of his tongue, as if the organ had been scalded. Since the paralysis set in he had constantly had a metallic taste on that side. The common tactile sensibility of the parts was not affected. He had been hard of hearing of both ears for many years, but since his face had been paralysed he had been struck with the fact that he could hear better with his left ear than with the right, and decidedly better than before. When he was first seen by Dr. Bazire he presented the well-known appearances of facial palsy: the smooth forehead, and blank aspect of one-half of the face; inability to close the eye on the affected side, to whistle, to frown on that side, &c. The left half of the tongue and of the oral cavity were not dryer than the right, but the patient distinctly stated that he had a metallic taste in the left half of his tongue. His uvula was pendulous, but in a straight line, not inclined to either side; the left half of the velum palati was apparently depressed, and lower than the right half. Hearing was decidedly better on the left side (that of the paralysis) than on the right side.

The perversion of taste present in this case, as well as in our own, is due, according to Claude Bernard, either to "a modification of the circulation of the part, or to deficient

* Brit. Med. Journ., Oct. 24th and Dec. 12th, 1868.
† Only one side of the body was paralysed in Mr. Hickenbotham's case.
‡ Brit. Med. Journ., Sept. 21st, 1867, p. 249.

erection of the papillæ of the tongue preventing proper contact between them and the sapid substances."* And this is the result of paralysis of the chorda tympani nerve, a branch of the facial which joins the lingual branch of the fifth nerve.

Lastly, how can we account for paralysis of both sides of the body? In this way, no doubt. The paralysis of the left side of the face, the right arm, and the right leg may be due to implication of the left side of the pons, while the extension of the disease beyond the middle line would account for the paralysis on the left side of the body.

Let me now refer briefly to the other point—namely,

2nd. *The nature of the disease.*—I think we may reasonably conclude that the symptoms are due either to hæmorrhage, softening, or tumour. In all probability they are not due to *hæmorrhage*. The history is quite different from that which we would expect in such cases—e. g., pain of the head of two years' duration is never observed. Again, this condition is most frequently observed in persons who are getting up in years, and in whom there is more or less evidence of degeneration of the coats of the superficial vessels—pointing to the probability of a similar degeneration of the cerebral vessels, such as usually precedes rupture; while our patient is young, and the superficial vessels are natural.

Softening of the brain is usually dependent upon obstruction of a bloodvessel either by an embolus or a thrombus (the difference between an embolus and a thrombus being that the former comes from a distance, while the latter is developed at the seat of obstruction). For similar reasons to those mentioned with regard to hæmorrhage, we may discard the notion that softening from thrombus has produced the symptoms. Nor is it probable that embolism is at the root of the matter, for there is an absence of the usual history and concomitants of such a condition. For example, in such cases we often find a history of this kind:—A patient has an attack of rheumatic fever, which involves not only the joints, but likewise the endocardium. Fibrine is deposited upon the segments of the mitral valve, rendering it incompetent; and a systolic murmur is heard at the apex of the heart. Portions of this deposit are very apt to be washed away by the blood, and to give rise to symptoms of embolism in the brain, spleen, kidneys, &c. Nothing of this kind was present in our case; so that by a process of exclusion it is reasonable to suppose that the symptoms are due to the presence of a small tumour, and if so, what is the probable nature of the tumour?

First. It may be *syphilitic;* but then we should expect to have a history of syphilis, and to find other manifestations of that disease—such as deep ulceration of one tonsil, nodes on the superficial bones, a tubercular eruption on the skin, or the like. We should also expect the pain of head to be nocturnal in character. In connexion with syphilis, too, the sixth and the third nerves are specially liable to be involved (paralysis of the former giving rise to inversion of the eyeball; of the latter, to dilatation of the pupil, ptosis, and divergent squint). If there was still any doubt, the result of an antisyphilitic treatment might decide the point.

So much for acquired syphilis; but the tumour may be the result of a taint hereditarily transmitted. In that case, however, we would probably have had a history of miscarriages in the mother, and of manifestations of syphilis in the infantile period; we would almost certainly have found other evidences of hereditary syphilis in addition to the cerebral symptoms—such as pallor of the skin, cicatrices upon the face and at the angles of the mouth, stunted growth, prominence of the brow, corneitis, sunken nose, and notched teeth.

Second. It may be *tubercular;* but tubercular tumours of the brain most frequently occur between the ages of three and seven years, and there is often a hereditary tendency to tubercular disease. Other manifestations of this diathesis are likewise frequently present, as in the following case reported by Sir Thomas Watson:† "I attended," says he, "with Dr. Latham, a youth whose symptoms led us to believe that he had tubercular disease of the peritoneum. ..... We thought it probable also, although there were no *physical signs* of pulmonary disease, that his lungs contained crude tubercles. After some time he went down to the coast, and was there attacked with a fit of general convulsions. Up to that period he had shown no symptoms whatever indicative of organic disease within the head. On being apprised of this seizure, we expressed in a letter to the physician then attending him that it had resulted from the presence of scrofulous tumours in the patient's brain. The convulsions returned a few days afterwards with great violence, and the boy died. It was as we had conjectured. The peritoneum was found studded with innumerable miliary tubercles; there were a few crude tubercles, of some size, around the roots of the lungs, and two large masses of the same sort in the brain."

In connexion with this point it may be well to bear in mind the rule, to which there are few exceptions, that after the age of puberty there is more or less evidence of tubercular disease in the lungs when other organs are attacked. Lastly, were the tumour tubercular we should expect to find elevation of temperature, although not to so marked an extent as when other organs are involved.

Third. The tumour may be *cancerous;* but cancerous disease generally occurs in persons over forty years of age, and is accompanied by a cachectic appearance, which is not present in our patient. In some cases, too, there is a hereditary tendency to cancer, or (exceptionally) cancer is detected elsewhere.

If tumour there is, then, it is evident it is neither syphilitic, tuberculous, nor cancerous. What then? All that we can say is, that in young adults, if we are able to exclude syphilis, a tumour of the brain is generally benignant in character (glioma, sarcoma, &c.)

In the treatment of this case, of course no attempt has been made to cause the tumour to disappear. All we could do was to treat symptoms and complications. We gave her a course of strychnia, and, as the bowels were constipated, we combined it with sulphate of magnesia in the following form: Sulphate of magnesia, three ounces; dilute sulphuric acid, an ounce and a half; solution of strychnia, three drachms; syrup of ginger, four ounces; infusion of gentian, to twenty-four ounces. A tablespoonful in water to be taken three times a day.

The paralysed side of the face was likewise galvanised every second day, and a series of blisters were applied alternately in front and behind the ear. Soon after the commencement of the treatment the pain in the head and the paralysis of the extremities disappeared, while the paralysis of the side of the face was considerably modified. At the present time the patient is in the most perfect health, and the only symptom which remains is partial paralysis of the portio dura nerve.*

This case was brought under the notice of the Pathological and Clinical Society of Glasgow; and in the discussion which followed, Dr. Alexander Robertson suggested that the symptoms might be due to some inflammatory lesion at the base of the brain; while Dr. Finlayson thought that the facial paralysis was of peripheral origin, and that no one lesion could satisfactorily account for all the paralytic phenomena. In view of the partial, transient, and multiform paralysis so completely recovered from, he was of opinion that a syphilitic or hysterical element was strongly suggested.

* See Dr. Bazire's paper before-mentioned.

† Lectures on the Principles and Practice of Physic, fifth edition, vol. i., p. 380.

* Dr. Thomas Reid examined the eyes of this patient with the ophthalmoscope, and with the following result: There was hypermetropia (one-twentieth) in both, and in both thinning of the choroid. The vision of the left was reduced one-half, but there was no special defect in any region of the field of vision. The papillæ in both were oval-shaped, and the vessels were accompanied in both by white streaks. The upper and inner aspect of the left disc was slightly cupped, and occupied by a network of cicatricial tissue continuous with the white streaks accompanying the vessels. Dr. Reid thought that the symmetrical character of the abnormal shape of the discs pointed to congenital or local rather than intracranial causes. The intraocular changes, viewed by themselves, might be accounted for by the hypermetropia; but, in the light of the other symptoms, it was also possible that they were due to some general cause, syphilitic or other.

WE learn that a serious outbreak of enteric fever has occurred in the village of Eynsham, Oxon. In a row of sixteen cottages thirty-two cases of fever—two of them fatal—were reported during the past three weeks. The cause of the epidemic is not far to seek if, as we are given to understand, the wells of the village are contaminated with sewage matter, and the ditches running into the Thames are black with offensive, fetid sewage. An immediate and thorough inspection of the water-supply of the place is evidently necessary.

Lectures
ON
THE SURGICAL TREATMENT OF ANEURISM
IN ITS VARIOUS FORMS.

Delivered at the Royal College of Surgeons, June, 1874,

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LECTURE II.—PART II.

THE earliest instance of successful treatment of an aneurism of the femoral by pressure which has fallen under my notice is that of Albers of Bremen, which occurred in the year 1818.* A sailor, fifty-six years of age, had an aneurism, the size of a hen's egg, in the right groin. He refused to consent to the ligature of the artery. An apparatus was employed to make pressure above the aneurism, consisting of a screw clamp fixed by straps round the abdomen and thigh, making pressure on the femoral above the tumour, as it passed over the pubes. It is not stated whether the pulsation was completely suppressed. After two months' treatment the pain in the aneurism and the œdema of the limb were so great that he was forced to discontinue it and take to his bed; from which I conclude that he had not been confined to bed previously. After a time, the pain and swelling having subsided, the apparatus was reapplied, the patient being confined to bed. In seven months from the commencement of the pressure the cure was complete; and a year after he was first seen he was about to resume his avocation.

A very interesting case is related by Mr. Ebsworth in the *Medical Times* (Jan. 6th, 1844, p. 201), of a patient who was under Mr. Babington's care at St. George's Hospital in the year 1841, for a large femoral aneurism situated just below Poupart's ligament. It was proposed to tie the external iliac artery, which was at that time thought to be the only possible treatment for the disease; but the patient would not submit, and left the hospital, the aneurism increasing rapidly in size. This was the case for some time afterwards, till, at a second visit to the hospital (time not mentioned), Mr. Babington declared the ligature of the external iliac no longer possible. The patient was directed to live abstemiously, on no account to walk any distance, and to keep the thigh semiflexed on the pelvis by supporting it on a chair. The tumour gradually subsided, the pulse disappeared in the external iliac and all the lower arteries, and he recovered in all respects completely. The process seems to have taken about a year.

This case is quoted by some authors as a cure by flexion, but is related by Mr. Ebsworth, and I think with greater probability, as an instance of natural cure, or cure by rest and diet.

I have nothing further to say about the use of flexion in the treatment of femoral aneurism, except that it appears to me of little value, as impeding the employment of the more effectual method of compression, and holding out little prospect of cure. A successful case is, however, recorded by Buck,† which is of interest as being the first, if not the only case hitherto published in which the treatment by flexion has been successfully employed in femoral aneurism. The aneurism was about the size of half a hen's egg, and situated close below the groin; the patient a man about thirty years of age. Compression was made on the external iliac artery, just above Poupart's ligament, by means of an apparatus consisting of a steel band passing round the body behind, and its ends joined to a flat bar of iron eighteen inches long with a slit in the middle, into which the vertical rod carrying the compressor was inserted. This apparatus was kept on for three days—for forty-eight hours with the force originally used, which was sufficient to stop the pulse in the posterior tibial artery, and for the next twenty-four with only half that pressure. This apparently cured the aneurism, and when he was discharged it was hard and only the size of a marble. But the pulsation reappeared fourteen months afterwards, and on his readmission, sixteen months after his discharge, it was precisely in the same condition as at first; and now, though deep digital pressure below the tumour arrested the pulsation, yet the firmest pressure above made no difference, nor could the pulsation of the external iliac itself be distinguished at that point. It was found that complete flexion of the thigh on the pelvis arrested the pulsation in the tumour, while a less degree of flexion checked it and diminished its size. Accordingly the thigh was flexed on the trunk, and the leg on the thigh, by bandaging the limb and body in a broad bandage, and after about three weeks' maintenance of this posture the pulsation disappeared, except a feeble beating, which was thought to be communicated to the tumour from the artery below; and in this condition he remained seven months afterwards. It must be allowed therefore that the evidence of definite cure in this case is hardly complete; and from the apparent obliteration of the external iliac above the tumour by the previous compression, the aneurism was in a very different condition from the ordinary one.

The case which is recorded by Verdier* is in many respects worthy of notice. The patient was a nobleman's porter, who had inguinal and popliteal aneurism on the same side. The leg became gangrenous, and amputation of the thigh was successfully performed by Boyer in 1816. A year afterwards he came under treatment for the femoral aneurism, which was increasing. It was situated about an inch below Poupart's ligament, too high for instrumental pressure to be made on the femoral artery. An apparatus was constructed to press on the external iliac by some one else, but was too painful to be borne. Verdier was then consulted, who occupied the position of "chirurgien herniaire" to the French Marine; and he constructed a light, well-fitting bandage, something like a truss, carrying a pad with two plates, movable on each other with a screw, which he figures in his tract. This apparatus was applied at first with the idea that three or four days' use of it would cure the disease. Dupuytren is reported as saying to the patient: "If you have the courage to keep the apparatus applied correctly for three or four days without leaving off, I will guarantee that you will be cured." However, it was not so. It kept the disease in check, so that when the screw was turned down the tumour was imperceptible; and the man wore it till the day of his death, which took place more than four years afterwards—December, 1822—from the bursting of an aneurism in the thorax. But the femoral aneurism was never cured; and M. Verdier ascertained in the year of the patient's death (1822) that, on the instrument having been left off for only two days, the aneurism began to increase and pulsate again. If I understand the account aright the compressor was worn night and day; but of course the man must have relaxed and tightened the screw as he liked.

In Fischer's statistics of the use of digital compression in aneurism,† seventeen cases are given in which the aneurism was femoral; and in all except one the artery affected was the femoral itself, either common or superficial. The excepted case was an arterio-venous aneurism of the profunda artery and vein from a stab. Eleven of these seventeen cases were successful, and in one of the eleven the arteries of both sides were affected, making therefore twelve aneurisms cured by digital pressure out of eighteen. The notes given show that in three of the successful cases the aneurism was in all probability above the bifurcation of the common femoral; in eight certainly below it; and in the remaining case the position of the tumour is not described. Two of these cases are remarkable—one of them as showing the great rapidity with which cure is sometimes obtained, and the other as proving that success is not desperate even in very extensive disease of the arterial system.

The first case to which I allude is Riberi's.‡ The patient was a young man affected with syphilis. The aneurism was seated on the lower half of the femoral artery, and had existed for two months and a half. It is described as being

* Hodgson, translated by Breschet, tom. ii., append., p. 532. Casamayor, Sur l'Anév. Spont., &c., p. 109.
† Amer. Journ. of Med. Science, 1870, p. 69.

* Verdier: Mémoire sur un Appareil compressif de l'Artère Iliaque externe. Paris, 1823.
† Frager, Viertel. Jahrsch., 1869.
‡ Vanzetti: Gaz. Méd., 1858, p. 626.

of the size of an orange. Digital pressure for two hours only produced consolidation. It was continued as a matter of precaution for two hours more, and cure was complete.

An unpublished case, under the care of Mr. Darke, of Salisbury, is in many respects the most remarkable which has as yet occurred. The man was extremely old—seventy-eight—and suffered from extensive disease of the arteries, the brachial and other superficial arteries being obviously atheromatous, and there being a pulsating tumour in the epigastrium. The disease followed on the kick of a horse, about a month before, which had evidently caused partial rupture of the artery. Every sign of aneurism was clearly marked. After one hour (sixty minutes) of digital pressure, kept up alternately by the house-surgeon and the superintendent of nurses on the femoral at the brim of the pelvis, the tumour became harder and less pulsating, and after thirty minutes more—i.e., ninety minutes in all—of pressure, all pulsation and bruit ceased, and the tumour was completely and definitely consolidated. The solidity of the cure was verified afterwards, and, as far as is known, the patient is alive and well up to the present time.

Linhart's case* is interesting from there being an aneurism on both sides, and from the fact that the arteries were affected with atheromatous degeneration. On the right side the aneurism (which was in the upper half of the limb) was the size of an egg, on the left side somewhat smaller. Eighteen hours of intermitting digital pressure in the course of four days sufficed to cure the right or larger aneurism, while 539 hours during seventy-seven days—i.e., seven hours a day for eleven weeks—were required before the smaller aneurism was cured. Ultimately, however, the cure of both was obtained.

In three out of these twelve cases instrumental pressure had been previously tried, and was given up in two cases on account of its causing ulceration of the skin, and in the third on account of the pain.

In a case under Fröhlich's care,† an aneurism the size of an apple, in the middle of the thigh, was cured by the patient compressing his own artery at intervals for periods varying from five minutes to half an hour, as often as he was able, during five weeks.

The unsuccessful cases in this table are fewer in reality than the figures would at first sight seem to show. One was a case of diffuse femoral aneurism following the ligature of the femoral for popliteal aneurism ‡ Here digital pressure for seventy-two hours produced apparent cure. On a relapse, the pressure of a weight during seven days completed the cure. No doubt can be entertained that a renewal of digital pressure, if it had been convenient, would have effected the same end. A second§ was a case of aneurism immediately below the groin and in the ham of the same side. Digital pressure was used in the groin for twenty-four hours. The aneurisms were not cured, but nothing further is known about the case.

This leaves four cases, in all of which the aneurisms were traumatic, and traumatic aneurisms, it is well known, are not very amenable to the compression treatment, in consequence probably of the variable composition, thickness, and resiliency of the tissues forming the sac. Ligature of the external iliac was ultimately performed in all these cases, though in one after the sac (which was near the groin, caused by a pistol wound) had been laid open, and both ends tied. Secondary hæmorrhage led to the ligature being applied above, and the patient at length recovered. One of the others also recovered after ligature. The other two died. In one of these the disease, an arterio-venous aneurism of the profunda artery and vein, ought perhaps to have been treated by laying the sac open.

This record of digital pressure for femoral aneurism, if it should be borne out by future experience, is surely in the highest degree encouraging.

The experience of our hospitals has not, however, been nearly so successful as this collection of published cases. We have here eight cases in which pressure in one form or other has been used with success in femoral and ilio-femoral aneurisms. In five of these cases the pressure was applied either to the aorta or the common iliac by means of the abdominal tourniquet under chloroform, and, in a sixth, the external iliac was compressed for six hours under chloroform. This leaves two instances only of successful pressure without anæsthetics, in one of which the aneurism (which was believed to affect the profunda femoris artery) was cured by instrumental compression of the external iliac. The case was under Dr. Patrick Watson's care at the Edinburgh Royal Infirmary, and has been published by him. The other was a case of femoral aneurism situated in Hunter's canal. The patient, a man aged sixty, was under Mr. Tyrrell's care at the Mater Misericordiæ Hospital at Dublin, and was cured by ten days of interrupted pressure, digital and instrumental mixed, on the femoral artery.

This preparation (xiii., 189), from a case under treatment at St. Bartholomew's Hospital, under Mr. Savory's care, too recently to be included in the table, shows the cure of femoral aneurism by pressure, possibly not quite complete, but at any rate very far advanced. The patient was seventy-two years of age, and died during the progress of the treatment, apparently from general degeneration of the organs of circulation. The aneurism was formed partly by the wall of the artery, and partly was "diffused"—i.e., formed in the cellular tissue around. The treatment was partly by instrumental pressure on the end of the external iliac artery, and, when that became intolerable, by digital pressure, which gave great relief from the pain caused by the tourniquet. On post-mortem examination it was found that the coagulum, though not very firm, was still sufficiently formed to prevent water injected with moderate force into the artery from passing into the aneurismal tumour.

This very pretty preparation from Dublin shows the cure in its definite state; but I am unable to refer to the history.

Thus we see that pressure, whether instrumental or digital, is often successful in femoral aneurism. The femoral artery as it crosses the pubes lends itself so easily to the digital form of pressure, and this form is, for reasons which I will presently set forth, so much superior to any kind of instrumental pressure, that I should always employ it when it is possible. The external iliac, on the other hand, lies deep in the belly, and can be with difficulty commanded by the finger for a sufficient time, while Albers's case and Verdier's show that instrumental pressure can be made there and kept up for an unlimited period.

But, on the other hand, we have a good many cases in which compression has failed, and some in which it seemed to produce death.

There are eighteen cases on the whole in our hospital table in which the compression treatment failed. In three death occurred without any further operation on the arteries. One of these was the case of which Mr. Birkett has given an account in the 52nd volume of the Medico-Chirurgical Transactions, and in which the patient died from pneumonia after three applications of the abdominal tourniquet under chloroform. The second was a case at St. George's Hospital, under my colleague, Mr. Pick, published in the last volume of the St. George's Hospital Reports, in which, after apparent cure by digital compression in three days, the aneurism began to enlarge rapidly, gangrene ensued, and the patient sank an hour or two after amputation at the hip-joint. Here the femoral artery had no doubt been ruptured by a sprain. The third was a case which occurred at St. Bartholomew's Hospital in the year 1872, and has been recorded in the *British Medical Journal* for July 2nd of that year. The patient was seventy-three years of age, and died with suppuration in the sac and thrombosis of the vein, after the instrumental compression of the femoral artery.

The other fifteen cases of failure comprise one under the care of Mr. Stokes, of Dublin, in which, after the failure of abdominal compression, the abdominal aorta was secured by a temporary ligature with a fatal result. This was an example of mixed aneurism involving the abdominal arteries as well as the femoral. A second case was one of rupture of the femoral artery near the groin, with formation of a secondary aneurismal sac. Here, as the tumour increased under pressure, it was laid open, and the artery tied above and below; but secondary hæmorrhage ensued. The limb was amputated, and the patient sank gradually from hectic. These two cases were both out of the ordinary line of practice. The other thirteen were more common cases of femoral aneurism, in five of which, after the failure of pressure, the artery was tied with ultimate success (the external iliac in one case, and the femoral in the other

* Gurlt, Jahrb., 1860-1, p. 116. † Ib., 1863-5, p. 201.
‡ Parker: Trans. of Am. Med. Association, 1849, vol. ii., p. 228.
§ Wagner; Berlin. Klin. Wochensch., 1866, No. 27.

four), though in one of the cases the leg had to be amputated. In seven other cases death followed the ligature of the artery above, which in six was the external iliac and in one the femoral. In the eighth fatal case, after the failure of digital pressure, galvano-puncture was used twice. On the second occasion it caused inflammation and threatened rupture of the sac. The femoral artery was tied, but the patient (a very old man, aged seventy-five) sank from exhaustion.

It is a singular circumstance, that besides the case referred to above, in which, after the failure of pressure, the sac was laid open and the artery tied above and below, there are eight other cases in which the old operation was performed in the thigh. In most of these cases the operation was performed, as in those published by Mr. Birkett* and Mr. Henry Smith, on account of the subcutaneous rupture, or so-called "diffusion" of the aneurism. In one case, however, it was necessitated by a wound of the aneurism, which had been opened by mistake for an abscess. In this case the vessel could not be found, and the limb was amputated with success. In another case, which was under Mr. Syme's care in 1862, and which seems to have been one of ilio-femoral aneurism, the sac was laid open upwards and downwards to the parts where the artery assumed the normal calibre, and was tied at either end of the sac, in doing which Poupart's ligament was cut through. The patient died on the eighteenth day after the operation. The cause of death is not stated.

Besides this case, only two of the other patients died. One was under Mr. Holmes Coote's care at St. Bartholomew's Hospital in 1867, and the case will be found in the Reports of that Hospital. As Mr. Coote remarks, it was rather one of wounded artery than of aneurism. The vein was also wounded, but was apparently not tied. Severe bleeding came on in the night, and then the thigh was amputated, but the patient sank. The other was a case of rupture of the profunda artery from a sprain, in which very great difficulty was experienced in finding the injured vessel, and the patient died from the shock of the protracted operation. I ought, perhaps, to mention that in one of the successful cases, the femoral vein was accidentally included with the artery in the ligature.

To these cases I might add another which Mr. Gay published some years ago.† I had the opportunity of seeing the patient last year, and he was then sinking from visceral disease, quite unconnected, however, with the operation, which has been in all respects successful, the wound having soundly healed, the circulation of the limb completely re-established, and the man as active as his weakly general condition permitted; in fact, thoroughly cured of his formidable disease. He has since died, but no post-mortem examination was permitted.

This record of a very formidable list of cases, treated decisively and radically by an operation so grave as the old operation on femoral aneurism must be allowed to be, certainly shows that its success in the hands of the hospital surgeons of the present day is greater than we should have *à priori* been inclined to expect; and I have no doubt that the treatment pursued in these cases is that which surgeons should adopt in all cases of ruptured femoral aneurism, though I am aware that such a complication has not prevented the successful performance of the Hunterian operation. In THE LANCET, vol. ii. 1851, p. 30, is an example under the care of Mr. Hovell, of Clapton, in which he tied the femoral artery on Hunter's principle with complete success, in a woman affected with aneurism in the lower part of the thigh, which had burst through the skin, causing hæmorrhage to the extent of a pint. Suppuration took place in the sac, but no further bleeding, and the tumour disappeared.

* Med. Chir. Trans., l., 431.
† THE LANCET, vol. i. 1868, p. 780.

BEQUESTS &c. TO MEDICAL CHARITIES—The Salisbury Infirmary has, as appears from the annual report, become entitled to a legacy of £3000 under the will of Mr. Henry Cooper, of Salisbury, and a contingent one of £2000 under the will of Mrs. Maria S. Huxtable, of Sutton-Waldron; and received a further £100 from the Dowager Marchioness of Westminster, £100 from Mr. and Mrs. Staples, of Belmont; and seven separate legacies of £100 each, and one of £5.

ON IPECACUANHA SPRAY IN WINTER COUGH AND BRONCHITIC ASTHMA.

BY SYDNEY RINGER, M.D.; AND WILLIAM MURRELL.

THE successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely chose severe cases. In order to avoid burdening this paper with too much detail, we give here a typical case, which will serve in most points to illustrate the condition of the patients. Subsequently we shall report two actual cases in full.

The patient has been troubled with winter cough perhaps for many years. During the summer he is pretty well; but during the cold months, from October to May, he suffers sometimes without intermission, occasionally getting a little better and then catching cold; or perhaps he may lose his cough for a few weeks, but again takes cold on the slightest exposure. So short is the breathing that he can walk only a few yards, especially in the cold air, and finds it hard work to get upstairs, and is often quite unfitted for active life. The breathing grows worse at night, so that he cannot sleep unless the head is propped up with several pillows. He is troubled, too, with paroxysmal dyspnœa, usually at night, which may last several hours, and compels him to sit up. Sometimes the breathing is difficult only on exertion; and in those cases it is made much worse by fogs, east winds, or damp. The expectoration varies greatly; in a few cases there is very little; usually, however, it is rather abundant, and consists of mucus or pus, often with little or no rhonchus in the chest. It is often difficult to expel the expectoration. The cough is generally very violent, frequent, hacking, and paroxysmal, and the fits may last ten or twenty minutes, and even excite vomiting. They are generally brought on by exertion; nay, in bad cases so easily are they provoked that the patient is afraid to move, or even to speak. The cough and expectoration are much worse in the morning on waking. Sometimes the cough is slight, and then the expectoration is generally scanty, the distressed breathing being the chief symptom. The patient generally wheezes badly, especially at night, and in a bad case the legs are swollen. The patient is emphysematous; there is often no rhonchus, or only sonorous and sibilant or a little bubbling rhonchus at both bases.

In this common but obstinate complaint our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out-patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but if it continues a weaker solution should be used. The patient soon becomes accustomed to it, and inhales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and consequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

The dyspnœa is the first symptom relieved. The night after the first application the paroxysmal dyspnœa was

often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvement taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold. We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundred yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, this comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes. The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much more readily, and thus the cough becomes easier, even before the expectoration diminishes.

Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with only one pillow. This improvement occurs in spite of fogs, damp, or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room.

Here are short notes of two cases, the first a very successful one.

J. H——, aged seventy-two, has had a winter cough for the last three years. The cough comes on in fits, and is very bad at night. Fogs greatly aggravate it. She spits about a teacupful of thick yellow phlegm in the twenty-four hours. So bad is her breath that she cannot lie down at night, but is propped up with pillows, and is always wheezing. She is obliged to stay at home for weeks together. Her lungs are emphysematous, with only sonorous râles. After the first inhalation there was great improvement—freedom from cough all night, with much easier breathing. Further improvement took place after the next day's inhalation, and still more after the third, so that on the sixth day of treatment, and after three inhalations, she reported that her breathing "was not near so troublesome; thinks nothing of it now; does not spit up half as much," and the expectoration is white and frothy. This poor woman was loud in her praise of the treatment; said she "never expected it," and "when first she came to the hospital thought she should never get about again." J. H—— is now sufficiently recovered to take charge of a shop, though before her attendance at hospital she had not been out of her room for four months. She was discharged, and called a month afterwards to say there had been no relapse.

Now comes a less tractable instance, a fair specimen of one of the more obstinate cases.

M. A——, aged thirty-two, came to the hospital January 29th with a winter-cough of many years' standing, and worse this winter than ever before. The cough is paroxysmal, the slightest exertion, even talking, bringing on an attack. The paroxysms vary much, but generally last ten minutes. In the twenty-four hours she spits about a teacupful of thick yellow phlegm. Extremely short-breathed, and she is quite unable to do her house work, and at night is unable to sleep unless propped up with three pillows and a bolster. The breathing always gets worse at night. Fogs increase all her troubles. Has been hoarse for weeks, and if she talks much she altogether loses her voice. Her chest is very sore with coughing. She is emphysematous, and her breath-sounds are obscured by cooing râles.

Feb. 3rd.—The patient, who has had an inhalation on five successive days, now says she is in every way much better. The breathing is much easier; the cough is not nearly so violent; her chest is less sore; the expectoration is much less; and there is very little hoarseness.

6th.—The inhalations have been continued daily. The patient says she is better than she has been all the winter. The improvement in her breathing is very great, and she can now do with only one pillow at night instead of three. She sleeps much better. The cough is greatly improved, and, instead of being "aggravated" towards night, is now better at that time. Expectoration has almost ceased.

10th.—Has had only one inhalation since last date, and her breathing has been a little more distressed.

12th.—Has had an inhalation daily, and the dyspnœa has again nearly disappeared.

17th.—Has had but one inhalation since last date. The cough now has almost left her, and she often goes twelve hours without a fit. Her breathing is so much better that she now does her own house-work, and is not propped up at night.

Discharged after ten inhalations and nineteen days' treatment.

A month afterwards she came to the hospital to say that her breathing was all right, and that she had been perfectly well since her discharge, with the exception of a slight hacking cough.

All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9·4, and the average number of days was twelve, before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest under treatment required twenty-four days; the shortest, four.

In employing the ipecacuanha spray, in order to ensure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, sometimes enough is swallowed to excite nausea and even vomiting, by which means the bronchial mucus is mechanically displaced, and of course in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucous membrane; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes, especially on the commencement of the treatment, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers and to breathe deeply. The inhalation should be used at first daily, and in bad cases twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed.

We have tried the spray with very satisfactory results in a few cases of the following more severe though closely allied disease:—A patient for several years has suffered from severe winter cough, with much dyspnœa, cough, and expectoration; and on several occasions has spat up a considerable quantity of blood. The physical signs denote slight fibroid consolidation, with excavation of both apices, and much emphysema, perhaps atrophous in kind. There is little or no rhonchus, and no fever. The expectoration may be slight or very abundant, muco-purulent or purulent. The dyspnœa is, perhaps, very severe; and is so paroxysmal as to justify calling the case bronchial asthma, with emphysema, and fibroid phthisis. In these cases the ipecacuanha spray is almost as beneficial as in the preceding. It soon controls the dyspnœa, thus enabling the patient to sleep, and greatly lessens expectoration and cough; and by these

means really improves the general health. As in the previous cases, the first inhalation may considerably improve the breathing, though the effects are not so permanent, the dyspnœa returning in the evening; so that spraying is needed night and morning, and may be necessary for weeks or months, the ipecacuanha appearing rather to give relief than to permanently cure the dyspnœa.

We have used the spray in two cases of true and severe bronchial asthma, with very opposite results. In one severe case, accompanied by a great deal of bronchitis, it gave very great relief. The other patient, not so ill, has been all his life asthmatical; and on catching even a slight cold his breathing becomes greatly oppressed. In this instance each application of the spray considerably aggravated the dyspnœa, even when the wine was diluted with an equal quantity of water. Possibly a still weaker solution might have been borne; but we are inclined to think that in this case any quantity of ipecacuanha would have disagreed, as the tightness of breathing increased almost immediately the inhalation was begun.

The successful case was a very severe one. For years this woman had suffered from bronchitic asthma, and when she applied to the hospital was unable to lie down owing to shortness of breath. She suffered also from violent paroxysmal dyspnœa, the worst attack beginning about three A.M., compelling her to start out of bed and struggle for breath. She was very emphysematous; her voice was very hoarse. The first inhalation removed the hoarseness, and much improved her breathing, which continued freer till midnight, when the dyspnœa returned. The cough was eased, and she expectorated more freely. Each inhalation always gave her very great and marked relief. She walked to the hospital with great difficulty, and was constrained to stop frequently. On entering the room she could not speak, but laboured violently and with loud wheezing to get her breath. A few inhalations would gradually set the breathing free, so that the air entered more and more, and the wheezing gradually left, till, on the completion of the inhalation, she could breathe without difficulty. As the breathing improved she could feel the spray descending lower and lower in her chest. At first it would seem to reach only the back of the tongue, then the top of the sternum, then descend to midsternum, and at last she felt as if it reached as low as the pit of the stomach. This improvement was maintained through the day, but at evening a relapse would occur, so that her nights, though at first bad, were still better than before the treatment. Soon, however, the effects became more lasting, and she slept well. On discontinuing the spray, however, her breathing again grew worse, and she was obliged to revert to the treatment; but unfortunately she so soon caught cold, and so bad was the weather, that she was obliged to stay away for days together. Whilst her breathing improved the cough and expectoration also improved, but these two symptoms continued rather troublesome. Probably in bad bronchitic asthma the spray must at first be used twice a day or oftener, and must be continued for some time to ward off the dyspnœa, for in these obstinate chronic cases the bronchitis may take a considerable time to cure. So marked was the improvement from the spray that the patient and her friends expressed their astonishment, especially at the prompt relief it gave.

ON DIABETES FROM CARBONIC OXIDE.

BY B. W. RICHARDSON, M.D., F.R.S.

THE brief notice of Dr. Pavy's interesting experiments on the production of diabetes by the inhalation of the fumes of the Lycoperdon giganteum (common puff-ball), reported in THE LANCET of last week, calls from me the following brief notice.

Immediately after I had discovered the anæsthetic action of the fumes of burning lycoperdon—viz., in 1853,—research was made as to the agent in the fumes that produced the physiological effect. I commenced this inquiry on my own account; but before my analysis was completed I received a request from Snow to visit him at his laboratory in Sackville-street to witness his analysis. I went as desired, and was shown, beyond all dispute, by Snow, that the active agent in puff-ball smoke is carbonic oxide gas. A short time afterwards, and before Snow had time to publish his new observation, Thornton Herapath sent me word that he had made the same discovery. Herapath published an account of his research at once, so that the originality of the observation that carbonic oxide is a product of the slow combustion of the lycoperdon has very justly rested with him.

When the matter under inquiry had been demonstrated thus far, I commenced a series of researches on the comparative action of carbonic oxide upon animals. I found precisely the same effects from this gas when it was administered, well diluted with air, as were observed from the fumes of the lycoperdon. The insensibility produced was the same, and the peculiar bright redness of the arterial blood was the same.

At the same time a most interesting new point was observed—namely, that dogs made to inhale carbonic oxide were rendered temporarily diabetic. I collected the urine passed after exposure to the gas, and found it contained glucose in considerable quantity. I made this subject a point of illustration in a lecture on diabetes delivered at the Grosvenor-place School of Medicine on November 22nd, 1861; and the report of the lecture, published by Mr. Macpherson in the *Medical Times and Gazette* of March 8th, 1862, although it is merely an abstract of the lecture, contains a brief but correct notice of the fact named. In an after experiment I found that coal-gas, which contains carbonic oxide, produces the same conditions as diluted carbonic oxide—namely, redness of the venous blood and saccharine urine.

A corroborative and singularly interesting observation has been made later still by Dr. Hesse. He noticed that two men who had been exposed, by accident, to the fumes arising from a stove heated by pit-coal, when they had recovered from the more imminent symptoms, were suffering from diabetes; their urine was charged with diabetic sugar.

In my experiments on the inhalation of oxygen, which have been extensive, I have compared the action of oxygen with that of carbonic oxide. In respect to the urine, it has seemed to me that there is a difference, and that sugar can only be produced freely by the action of carbonic oxide. A prolonged inhalation of an atmosphere in which carbonic acid was present in such weak dilution with common air as to cause torpor without asphyxia caused, however, evidence of sugar.

The hypothesis I formed, when I first observed the action of carbonic oxide in producing saccharine urine, was that the gas exerted its toxic influence through the nervous system. I doubt now whether this view is correct. In the last few years the researches that have been published on carbonic oxide, especially by Dr. Arthur Gamgee in his splendid paper published in the *Journal of Anatomy and Physiology* for May, 1867, point, I think, to the possible conclusion that the effect of the gas may be chemical and direct in the production of glucose in the animal secretion.

In Dr. Pavy's experiments with the fumes of the Lycoperdon giganteum, the agent at work has certainly not been oxygen, but carbonic oxide; and as my experiments have proved that the inhalation of carbonic oxide will produce artificial diabetes, and as it has been proved from the experiments of Bernard, Meyer, Hoppe, and Gamgee that carbonic oxide has the power of displacing the oxygen of the blood, I infer that when sugar is formed by the synthetical method now being considered, carbonic oxide, and not oxygen, is, either directly or indirectly, the cause of the phenomenon.

Hinde-street, W.

A CASE OF FISTULOUS PNEUMOTHORAX.

BY THOMAS COLE, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE ROYAL UNITED HOSPITAL, BATH.

JANE W——, aged eighteen, a pupil-teacher, consulted me on February 10th, 1874. She had been weak and ailing for some time, and was very anæmic. There was no cough; no special disease was found. Rest and tonic treatment seemed in a few weeks to have restored her to health; so much so that she returned to her duties, though without my permission. Her mother came to me about ten days

afterwards to tell me she had a troublesome cough, from catching cold. I prescribed for her, but in a day or two, when she called, she looked very ill, and I ordered her home to bed. The right base was very dull, and fine and medium-sized crepitation was heard; fremitus was increased; respiration feeble; no characteristic pneumonic sputum; in fact, there was none at all. Temperature high; cough constant; respiration hurried; pulse feeble, quick. The rest of the right lung and the left lung did not exhibit any signs of disease. For some days she went on as favourably as could be expected, but one evening, while coughing, a violent pain seized her in the right side, with great dyspnœa. I saw her early next morning, and found her with very anxious and pinched expression, the forehead moist with perspiration, the breathing very difficult and hurried, pulse very rapid and small. The whole of the right chest was tympanitic, resonance reaching down to the very lowest thoracic limit, the pneumonic dulness being quite abrogated; all down the sternum the abnormal percussion-note was found encroaching on the left lung; the side bulged and scarcely moved, and the respiratory sounds were almost inaudible. The breathing in the left lung was exaggerated; the heart was pushed over to the left, the liver downwards. After the first day or two it was evident that pus was collecting, and inspiration was accompanied with a distinct metallic tinkle. There was much pain over the whole side, especially in the axillary and scapular regions. In the lower posterior part of the axillary region there was a remarkable amphoric note; this, with the great acuteness of the pain in that part, led me to believe the point of rupture of the lung was opposite to it. The diagnosis was rupture of the lung with pneumothorax, probably from softening tubercles.

Her state becoming worse and worse, I resolved at the end of a week to tap the chest with the aspirator. Much stinking air and a few ounces of pus were withdrawn, and the patient experienced decided relief. This was only temporary, and in a few days I repeated the operation with a similar result, there being, however, a considerable quantity of pus. The drainage-tube suggested itself, but it was evident that the injury was quite beyond all human skill, and that air would have taken the place of any pus or air thus evacuated, keeping up the same mechanical condition. The matter was gathering again quickly. The dulness produced by its presence did not reach further upwards than the inferior angle of the scapula, but the diaphragm was becoming more and more convex downward, thus enabling a large quantity to collect without much extension of the dulness. The liver was pushed down more and more, and there was much tenderness over it, probably from its extremely congested state. The heart's apex beat in the left axillary region. No pulmonary sounds could be heard, except in the interscapular region. The tinkle was still audible. Some offensive phlegm was expectorated occasionally. There was a peculiar and unpleasant smell about the poor patient. The left lung was working with difficulty. Dilatation of the jugulars and œdema of the feet pointed to the great embarrassment of the circulation. The dyspnœa was most distressing, and the pain severe, unless the patient was under the influence of hypodermic morphia. The asthenia was most marked, and fourteen days after the occurrence of the pneumothorax death ended the most agonising scene perhaps that I have ever witnessed.

The following are the results of the post-mortem examination:—The abdomen was first inspected, and the liver found to be pushed downwards and to the left, reaching to the umbilicus and filling the left hypochondrium. Its upper edge was an inch and a half below the costal margin, and instead of being rounded was flattened, so that the organ resembled a thick wedge. Its anterior margin was somewhat bent backwards, and overlapped by small intestine. The tissue was pale, and the hepatic veins were much distended with blood. There was very slight adhesion between the diaphragm and liver. The right half of the diaphragm bulged to the extent of an inch and a half into the abdomen, below the costal margin. This bulging was of course the cause of the liver's descent. On plunging a scalpel into one of the right intercostal spaces, a large quantity of offensive air escaped from the pleura, and the liver partly returned to its normal position. When the ribs were removed, the right pleura was found to contain about 100 oz. of pus, most putrid, with great shreds of lymph floating in it. This was ladled out, and the lung discovered compressed against the spine, and about half its original size. It was covered with a layer of purulent lymph, as was also the costal pleura. It was removed with great care, and a large opening found in that part of it corresponding to the situation of the amphoric note mentioned above. The opening would, I should say, in the expanded lung, have been quite equal in diameter to that of half-a-crown. Its edges were ragged, and the cavity with which it communicated would have held a large chesnut. It had no lining membrane. A large bronchial tube communicated with it, directly from the main division of the bronchus. The lower part of the lung was dark-purple, and all parts of it were airless and sank in water. It was studded with largish masses of greyish-yellow tubercle, but the apex was much freer than the other parts, and the masses were much smaller there than elsewhere. The left lung was somewhat collapsed; the upper part somewhat emphysematous; the lower congested. I could not see any tubercle at all in it. The heart was in the position indicated during life; the right cavities being distended. There was no peritoneal fluid. The cervical veins were distended, and there was œdema of the feet.

It is a very remarkable fact that a most minute examination did not reveal the least trace of tubercle in the left lung, and that the apex of the right seemed to be the most free part. When the patient first consulted me she had no cough; and in an examination of the chest, not very minute I must confess, no physical signs of tuberculosis were detected. Besides, the patient gained strength so rapidly, and got so well, as almost to preclude the possibility of its existence. Still it is scarcely open to question that there was latent tubercle in the lung for some time previous to death. But it is very paradoxical that the tubercular process was more advanced in the lower parts of the lung than in the upper. I have not much doubt that the pulmonic attack at the base of the lung set up the softening process which led to the rupture. The perforation seemed to have occurred about the usual spot in such cases. Early as perforation sometimes takes place, it is a striking fact that so large an opening should have been made so shortly after the commencement of the disease. Dr. Walshe states that the largest opening he has seen equalled a fourpenny-piece in diameter. The opening in this case quite equalled the diameter of that of half-a-crown, and special care was taken in the removal of the organ. Of course it would have been impossible for such a cavity to shrink, and be closed. The relief from aspiration was marked, and I believe prolonged life. A third operation was objected to, as was more strongly the use of a drainage-tube. The injection of morphia twice daily was of the greatest comfort to the patient, and is especially to be commended in such a case.

Bath.

A CASE OF INTESTINAL OBSTRUCTION;

TREATMENT BY COLOTOMY.

BY JOHN TAYLOR, M.R.C.S.

THE following case illustrates the advantages derivable from colotomy in cases of insuperable intestinal obstruction wherein the obstacle is known to be situated low down in the intestinal tract.

Mrs. S——, aged sixty, who had for many years enjoyed almost uninterrupted good health, and whose family history, so far as could be ascertained, was free from malignant disease, began to suffer in the early part of the present year from symptoms indicating some derangement about her uterus and bowel. Having ceased to menstruate since she was forty years of age, she was taken suddenly with uterine hæmorrhage, which recurred from time to time. In the intervals she had a discharge of a sero-sanguineous character, free from offensive odour. About the same time she began to experience pains both before and after defecation. Her motions were noticed to become smaller and smaller, were flattened, tape-like pieces, unmixed with blood, pus, or mucus; subsequently no solid fæcal matter was passed at all, all evacuations being loose, frequent, and attended with much pain. Examination per vaginam and per rectum failed to give any positive evidence of the cause of her suf-

fering. The os uteri was free from disease, and the uterus itself quite mobile. No obstruction nor abnormal condition could be felt in the rectum. Towards the latter end of March a hardness could, when the bowels were fairly empty, be felt on the left side, a little internal to the crest of the ilium. On the 28th of April she was seen by Sir Wm. Gull. At this time a tumour could be distinctly made out, occupying the left iliac fossa. It was about the size of an orange, globular, hard, somewhat nodulated on the surface, and quite movable. The superficial veins coursing over the left side of the abdomen and hip were enlarged. There was no œdema about the ankle. She had not lost much flesh, had a florid complexion, and there was no marked cachexia; but she had night-sweats, and was failing in strength. Sir William believed the tumour to be of a cancerous nature. On the 30th of April all fæcal evacuation ceased. Symptoms of complete intestinal occlusion set in. Repeated injections of turpentine and castor oil, and of plain warm water, administered with the stomach-pump tube, only brought away the smallest particles of fæcal matter. The tube passed readily to the extent of about six inches, and then seemed to meet with an obstruction. Constant vomiting of a greenish water ensued, which was free from stercoraceous smell. The abdomen was enormously distended, but unevenly so. The transverse colon could be distinctly mapped out, every movement of which was accompanied by distressing pain. The abdominal tenderness was not great, moderate pressure being borne without complaint. The pulse was intermittent, but soft; the tongue coated with a creamy fur. Hypodermic morphia injection alone relieved her.

On May 4th, in consultation with Dr. Henry Harland and Mr. Alexander Newington, it was agreed that no measure short of colotomy was likely to be of any avail in relieving her condition. The nature and prospects of the operation having been explained to the patient and her friends, and their consent freely obtained, she was anæstheticised, and the operation proceeded with. As it was tolerably evident that the obstacle was situated in the sigmoid flexure, and as there was every probability that the descending colon was not implicated in the disease, it was proposed to open the intestine in that situation. A somewhat oblique incision, about five inches long, was made, above and parallel with the crest of the ilium. The intestine having been reached and secured to the skin in the usual way, an opening was made into it. Some gas escaped, with a small quantity of fæces; as soon, however, as she was turned on her back the bed became deluged with liquid fæcal matter, to the relief of the distension, and the entire cessation of all acute symptoms. At night two grains of opium and two grains of calomel were given. The following morning she was found to have slept well, was bright and cheerful, with a calm countenance; had not been sick; had taken food well; the abdomen was soft and quite free from tenderness. On the third day after the operation she had retention of urine from atony of the bladder, which soon yielded to stimulants. At the end of the first week some pus formed at the lower or spinal end of the wound. This seemed due to some blood which had become infiltrated into the loose cellular tissue, of that part; it discharged through the lower angle of incision, and the opening soon closed. The entire wound was firmly healed in a fortnight.

It is now more than three months since the operation and Mrs. S——'s general health is still (August 3rd) tolerably good. She is able to walk about, and does not suffer much pain, notwithstanding the tumour steadily increases in size, and has become adherent to the surrounding structures. There is some prolapse of the intestine which is not the source of any great inconvenience, and can be restrained by a plug constructed by Mr. Pratt, of Oxford-street. The opening in the walls of the abdomen, and the parts around, are kept well lubricated with carbolised oil, and a pad of oakum is found very useful in absorbing and deodorising the discharges.

Ticehurst, Sussex.

THE Director-General of the Navy Medical Department, Sir Alexander Armstrong, K.C.B., lately made an official inspection of the Royal Naval Asylum at Great Yarmouth, in charge of Deputy Inspector-General W. Macleod, M.D., R.N.

ON THE GROUSE DISEASE.

BY ROBERT FARQUHARSON, M.D.,

LECTURER ON MATERIA MEDICA AT ST. MARY'S HOSPITAL MEDICAL SCHOOL, AND PHYSICIAN TO THE BELGRAVE HOSPITAL FOR CHILDREN.

ANOTHER very severe outbreak of grouse disease having occurred this season in various parts of Scotland, I venture to think that a short account of the careful dissection of several affected birds may not be without interest.

On August 10th I received a bird by post from Aberdeenshire. From its extremely feeble condition, it had readily been caught on the moor and conveyed home by the keeper; and having subsequently died a natural death, it was quite free from wounds or contusions, and therefore well adapted for examination.

I found it to be, in the first place, much emaciated; in short, a mere mass of bones and feathers. The thoracic organs were quite healthy, but on opening the abdomen some difficulty was experienced in removing the liver, which was soft, friable, and of a dirty greenish-yellow colour. The intestines were carefully slit up throughout their entire extent, and the first half of the smaller portion proceeding from the gizzard to the cæca was observed to be densely packed with tapeworm. The remaining portion of the canal, including the cæca and large intestines, was filled with thin, yellowish fæces, not unlike the characteristic evacuations of typhoid fever. The cæca contained a moderate number of the Strongylus pergracilis, which has been so well described by Dr. Cobbold. (See his pamphlet "On the Grouse Disease.")

On August 21st I received three diseased birds, also sent by post, so as to limit as far as possible the effects of decomposition. Emaciation had not reached anything like the same extent, and the morbid appearances differed slightly from those previously noted. Thus hardly any tapeworm was observed, but the strongyles were present in large numbers, one ordinary microscopic preparation containing from two to four, and the ova being exceedingly abundant. The intestines were full of soft evacuations, somewhat brownish in tint, and closely resembling thin paint; mucous membrane healthy, with the exception of a small portion of the cæca, which here, as in the first case, was studded with minute points of injection. The livers presented the invariable characters, being soft and almost diffluent, broken down throughout their whole extent, without any trace of purulent infiltration. Microscopic examination showed their minute structure to consist of a good deal of free oil and granular matter, with the hepatic cells in an advanced stage of fatty degeneration. All the other internal organs were healthy, and the blood and muscular tissue presented no deviation from the normal condition.

On more careful microscopic study of the fluid from the cæca, I was enabled to trace very completely the development of the embryo of Dr. Cobbold's strongyle, from the early granular condition of the ova, through the various stages of yelk segmentation, up to the formation of the perfect worm. Preservation for a few days in a moderately warm place enabled me to observe the interesting phenomenon of the young strongyles writhing and kicking vigorously within their containing shell. When released from imprisonment, their activity was no less remarkable than their tenacity of life; total desiccation for seventy-two hours between two slips of glass having merely the effect of temporarily suspending their manifestations of vital function.

The result of investigation into the morbid anatomy of these birds tends to confirm, in my own mind, the theory suggested in a letter published in THE LANCET last August, that the grouse disease consists essentially of a specific fever, propagated by epidemic or infectious influences, in the same way as cholera, typhoid, or enteric among ourselves. The appearance of the liver much resembles that noted in the continued fevers affecting the human race, and the invariable presence of diarrhœa as an early symptom points in the same direction; my post-mortem evidence being corroborated by experienced keepers, who have observed thin brownish droppings in the spring to be a pretty sure forerunner of the disease. Affected birds being almost invariably found in the neighbourhood of water, and being

even picked up in a dead or dying state with their beaks actually immersed in the burn or spring, is also strong evidence of the presence of a well-marked feverish condition. Emaciation, again, is not an invariable symptom, as extensively diseased birds are often shot whilst fairly plump; and the disease is often seen to assume much of the capricious character of an epidemic, affecting the higher parts of a moor, whilst the lower are comparatively spared, and progressing with extreme virulence on one side of a hill, whilst excellent sport is being enjoyed on the other. It has also been observed to occur with marked regularity every seven years; and as it always follows a season in which the moors have been unusually well stocked, some analogy may possibly be drawn with those fevers which are known to depend on overcrowding or under-feeding.

As regards the probable causation by parasitic infection, I confess myself unable to see why the presence of a minute strongyle in a comparatively unimportant part of the alimentary canal should be so much more injurious than the enormous masses of tapeworm which frequently infest the small intestine. Parasites generally produce evil results in proportion to the significance of the organs which they occupy, and while a single fluke or hydatid in the liver or brain may cause death, we all know what immense quantities of worms may prey upon a single host without any serious results. The grouse strongyle seems to bear a good deal of analogy to the well-known ascarides of children; and, troublesome as these sometimes are, I cannot say that I have ever observed any specially serious symptoms, and certainly never profuse diarrhœa, from their presence. Dr. Cobbold admits, however, that an antecedent state of debility must act as a predisposing cause to this parasite, and I may suggest the exhausting effects of a feverish disorder as a peculiarly favourable preparation for such an invasion. Regard for space prevents my entering at present into the deeply interesting question of prevention further than expressing my opinion that any means adopted for this end must partake of the nature of early detection and eventual stamping out.

Whichever theory of causation we adopt, there can be little doubt that the evacuations probably take a prominent part in spreading the pestilence, and that any sanitary precautions can never leave out of consideration this important fact.

Aberdeen.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

SCALP WOUND; CONCUSSION LASTING FOURTEEN DAYS; AND FRACTURE OF RIGHT TIBIA AND FIBULA.

(Under the care of Mr. LAWSON.)

THE following case, for the notes of which we are indebted to Mr. Tomes, house-surgeon, is of great clinical interest. No fracture of the skull could be detected, and yet the brain had evidently sustained severe damage, the symptoms of concussion lasting fourteen days. Even when these symptoms passed off, an imperfect aphasia presented itself; but whether this can be regarded as evidence of a localised lesion, or only as a manifestation of some disturbance of the brain-functions as a result of general injury, is not clear.

R. F——, a painter, aged forty, having fallen some twenty feet from a scaffolding, was admitted into Broderip ward, June 30th, perfectly unconscious, but occasionally moaning and giving utterance to some incoherent sentences. On examination, there was found a starred scalp wound over the centre of the occiput, laying bare the bone, in which, however, no fracture or depression could be discovered. Around the wound was a diffuse puffy swelling of the scalp. There was some arterial hæmorrhage from the wound, which was controlled by pressure. The right tibia was very obliquely fractured in its lower third, the upper fragment overriding the lower, and projecting forwards to such an extent that it was feared the skin over it would give way. The fibula was broken in the same situation, and there was quite one inch of shortening produced.

The leg was placed as soon as possible on a MacIntyre's splint, the shortening reduced, and the spasm of the muscles controlled by firm bandaging from above the fracture to the upper part of the thigh; and the whole was suspended in a Salter's swing. The scalp wound was washed out with a weak solution of carbolic acid, and the loose flaps secured by a few silver-wire sutures, the hæmorrhage being controlled by a compress and capelline bandage. Lastly, ice-bags were applied both to the fractured leg and to the injured part of the scalp. For the latter purpose a bag made in the shape of a helmet was used, as having an advantage over the ordinary round ones in not being so readily displaced through the patient's restlessnes. This fitted accurately around the circumference of the head, and was further secured by tapes under the chin.—10 P.M.: Pulse 144, small and weak. Patient still in a drowsy, stupid, unconscious state; answers questions incoherently when roused. Face less pale; no paralysis; pupils equally dilated and active.

July 1st.—A catheter was passed this morning, and a large quantity of urine drawn off, patient not having voided any since admission; still unconscious; pupils contracted; bowels confined. Ordered an ounce of senna mixture with twenty grains of compound jalap powder. A good deal of restlessness at times, and muscular spasms of injured leg.

4th.—Still unconscious; great spasm of muscles; the bowels were opened freely during the night; pulse 72; temperature normal. Groans when an attempt is made to rouse him, and there is tendency to general muscular spasm, almost at times amounting to opisthotonos; catheter used twice daily.

6th.—A slight improvement in his appearance; still very incoherent in answering questions, though he appeared to recognise his wife. There was so much jerking of the injured leg, and it was so much disturbed and rolled about in the swing by his restlessness, that the MacIntyre's splint was taken off, and complete rest, with the necessary extension, ensured by applying a Liston's long splint to the outside, and a Cline's splint, without a footpiece, to the inside of the leg. In addition to this, a heavy sandbag was laid along each side.

8th.—Decidedly more conscious this morning; answers questions less incoherently, though still in a dazed and confused manner; bowels open; urine dribbles away unconsciously; pulse 108; temperature 98·8°; aspect lighter. Takes milk and beef-tea, and meat chopped up. The urine, which is drawn off by catheter, being alkaline and rather turbid, bladder ordered to be washed out with tepid water, containing three minims of solution of carbolic acid (1 in 40) to each two ounces, daily.

Patient continued to improve in every respect, becoming more conscious daily. By the 11th the scalp wound had quite healed, and catheter no longer used, as its passage gave rise to so much spasm; water passed voluntarily.

16th.—Is quite sensible now, but appears to suffer from a partial loss of memory, especially with regard to names.

20th.—The Liston's splint was taken off since he complained of its being irksome, and the fracture put up in Cline's side splints. On examining the fracture no sort of union was found, though some callus had been thrown out apparently; very little action had been going on at all, it seemed. Doing very well in every other respect, but still has a difficulty in remembering names, and sometimes even in expressing himself. There seems to be a certain amount of aphasia, as well as of impairment of memory. Appetite good; sleeps well, and says he is perfectly easy and well.

THE HOSPITAL FOR WOMEN.

CASES OF OVARIOTOMY.

THE following is the last of the series of the cases of ovariotomy performed at this hospital during the past year. We shall complete the report with a table showing the general results and the average mortality.

CASE 23. *Ovarian tumour; ovariotomy; death after two months from cancer.*—S. L——, aged twenty-six, single, a housemaid, was admitted Dec. 15th, 1873, under the care of Dr. Heywood Smith, having first presented herself as out-patient on Nov. 13th. Catamenia began at fourteen; regular till April, 1873; absent fifteen weeks. The patient always had good health till four months ago, when she had severe pain in the hypogastrium, with general swelling. About the same time noticed a swelling about the size of a hen's egg in the right side, low down. Since then the swelling has rapidly increased (two inches in one week in girth at the umbilicus).

On admission, the abdomen was greatly distended; girth at umbilicus 40 in.; dull below a line drawn across abdomen an inch above umbilicus; flanks resonant, especially left; the lower half of abdomen is irregular, soft, and elastic in some places, in others solid. On vaginal examination, the uterus was found movable; uterine sound 2¼ in. in natural direction; a swelling behind the uterus, and on either side apparently fixed to uterus. Pulse 104; temperature 99° to 100°.

Dec. 20th.—The operation was performed by Dr. Heywood Smith, the patient having increased in umbilical girth 2¼ in. in three days. There were no adhesions. The pedicle was secured in Spencer Wells's clamp, and the wound closed with silk sutures. The other abdominal organs seemed healthy. Three hours after the operation the temperature was 98·5°; pulse 108.

The patient did fairly well, but had occasional sickness; temperature slightly increasing about third and fourth day (99·2° to 100·6°), but afterwards subsiding. When the clamp came away, Jan. 2nd, 1874, fourteenth day, there was a small abscess opening into the wound above the site of the pedicle.

Jan. 3rd.—Began to have aching pains all over her body, accompanied with distension of abdomen; very thirsty; dark and heavy about eyes; restless at times.

4th.—About 2 P.M. for half an hour she had a shivering sensation. The temperature rose to 102·7°. Pain referable to distension of abdomen.

After this the aspect was distressed, the wound suppurated but slightly, and looked inflamed and angry. From this the patient slightly improved, the temperature getting less, and the wound looking more healthy.

10th.—Some hardness in the neighbourhood of the wound, especially on the left side. The uterus was fixed by some deposit, as if from pelvic cellulitis, at the sides and front. Vagina not hot.

From this time the temperature and pulse maintained a nearly uniform standard—temperature 98·4° to 99°, and pulse 120 to 128; the respiration also being short, from 36 to 42. The abdomen continued to increase, till on January 26th it measured 38¼ inches. A blush appeared surrounding the wound for about an inch.

28th.—Symptoms of pleurisy arose, and distension of abdomen continued to increase; on 31st it was 40 inches.

Feb. 5th.—Fluctuation in right flank. Suffered from time to time dragging pain in the abdomen especially on the left. Respiration improved.

12th.—Much œdema of back, gravitating towards buttocks, and also in vulva and mons veneris. A small, hardish nodule was noticed to right of left breast.

16th.—Abdomen 41 inches. Swelling encroaches on ensiform cartilage; breathing shallow. Aspirator used; needle introduced above level of umbilicus, midway between it and left hip, and two pints and a quarter of a greenish fluid drawn off, gelatinous and albuminous. Much relief.

17th.—Tapped on the right side, and 8¼ pints of similar fluid drawn off; yet abdomen lessened only to 39 inches.

18th.—Much sickness; sinking pain in chest, with choking feeling; blush of skin increasing and brighter.

She continued to get lower and more distressed, and died on Feb. 21st, nine weeks after the operation.

Necropsy. — The body was fairly nourished. A small nodule existed on the inner side of the left breast. The pleura and diaphragm showed signs of severe pleuritic inflammation, with collapse of the right lung.—Abdomen: Liver adherent along the whole of its right and inferior aspects, and to the diaphragm for half its surface. Liver substance healthy. The cavity of the abdomen contained a large quantity of fluid. When this was evacuated all that was seen was a cavity lined by a glistening white tissue entirely hiding the convolutions of the intestines. The abdominal peritoneum was everywhere thickened, opaque, and irregularly studded with hardish flattened masses; bands of adhesion passed from the before-mentioned posterior wall of the (malignant) omentum to the abdominal peritoneum on the right side, and a band passed upwards to the under-surface of the liver. The immediate neighbourhood of the wound on the inner surface of the abdomen was covered with flattened masses of malignant deposit; the intestines were adherent to the lower part of the wound, and were matted together everywhere else, and adherent to the mass of the omentum. The peritoneal surface of the intestines was studded over with spots of malignant disease, varying in size from a pin's head to a split pea. Mesentery studded with similar spots. Capsule of spleen thickened. Right kidney slightly enlarged and mottled; pelvis dilated; ureter for the first inch and a half from kidney largely dilated, then constricted for half an inch, and the rest of its length dilated till it reached the carcinomatous mass in the neighbourhood of and surrounding the pedicle.

LONDON HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. MAUNDER.)

AMONG the cases at present under Mr. Maunder's care, the two subjoined are especially worthy of notice. The first illustrates the difficulties sometimes to be encountered in performing perineal section for stricture of the urethra, and shows how readily they may be overcome by the adoption of Mr. Furneaux Jordan's ingenious device. The second case is that of a boy who has lately been operated on for naso-pharyngeal polypus. Happily, so far the operation, which was necessarily of a formidable nature, has been successful.

Stricture impermeable to instrument; perineal section; puncture of membranous urethra.—The patient, thirty-nine years of age, has suffered nine years from chronic cystitis, and frequent rigors are associated with the disease. The obstruction is at the root of the scrotum, more anterior than usual. On August 4th Mr. Maunder laid open the urethra in front of the stricture, but after a prolonged and careful search could not find a passage to the bladder for the finest probe. He now adopted Mr. F. Jordan's suggestion, and having opened the membranous urethra through the anterior wall of the rectum, passed a silver catheter from behind forwards along the urethra, and brought the point out at the wound in the perineum behind the seat of stricture. A long grooved director, guided part way by the catheter, could now be carried into the bladder, and while the latter was retained as a guide, a full-sized catheter was passed along the penile urethra across the wound, and then along the director into the bladder, and there retained.

Aug. 24th.—The case is progressing favourably.

Naso-pharyngeal Polypus.—The subject of this disease was a lad fifteen years of age. Some fifteen months ago Mr. Maunder treated the case by evulsion, but the disease recurred. On August 4th he laid open both the hard and soft palate in the middle line, and then, having seized the growth with "lion" forceps, tore it from its attachment piecemeal, bringing away particles of bone with it. The bleeding was profuse.

Aug. 24th.—There has been no secondary hæmorrhage, and the case has progressed favourably.

STANLEY HOSPITAL, LIVERPOOL.

CASE OF BURN, NECROSIS, AND SLOUGHING OF THE FRONT OF THE KNEE-JOINT; BLOODLESS AMPUTATION WITH THE AID OF ELASTIC COMPRESSION.

(Under the care of Mr. RUSHTON PARKER.)

A BRASS-WORKER, aged forty-six, burnt his right knee before the fire, where he had fallen asleep under the influence of liquor, at the end of January, 1874. A similar thing occurred seven years previously, in consequence of which his knee had remained stiff, but useful (enabling him to

work the treadle of a lathe). For years he has had impaired sensation and motor power in the lower limbs, but has walked in quest of work with the help of a stick, the right limb having been the better of the two.

On admission, six weeks after the last accident, his knee was bent, half of the patella was necrosed and projecting, the corresponding surface of the femur was exposed, about a hand's extent of skin was lost from the front of the joint, and the leg-bones were dislocated backwards. There was some fetor, but not much discharge (on opening the joint after amputation, ulceration and necrosis of the head of the tibia and a collection of thick grumous pus in the joint were seen). He had also a terrible bed-sore on the sacrum, about three inches in diameter, in which the dense fasciæ of the back were exposed and necrosed to a depth of more than half an inch. His temperature, nevertheless, was normal, though the pulse was 108 and feeble. Two or three weeks previously he had foolishly declined amputation, which had been offered him at another hospital in this town, to which his own medical attendant had sent him. He was now, however, only too glad to ask for removal of his limb, finding that he was getting thinner and weaker, while the knee kept getting worse. Very little pain seemed to exist, and not much tenderness. This was attributed to the habitual feebleness of sensation in his lower limbs.

On March 13th chloroform was given, and followed up by ether, and the limb was wrapped in an elastic bandage from the toes to mid-thigh, where an india-rubber cord was tightly wound round several times and fastened. After the removal of the bandage, amputation was performed in the lower third of the thigh by oval skin flaps—the anterior the length of the limb's diameter; the posterior about an inch long. Carbolised gut ligatures were used, and a few vessels were twisted. The amount of blood lost was perhaps an ounce, and most of this came from the limb before the elastic cord was loosened. A couple of splints were put on, and the sutures left long, while the open stump was drained for five hours into carbolised wet lint, after which the flaps were brought together and carbolic washings used. A spiral wire drainage-tube was kept in two days. The greater part of the interior of the stump and half the superficial cicatrix healed primarily; the rest suppurated slightly, and was not healed till after six or eight weeks. He lay for three weeks, and then sat up in bed daily for a week previously to getting up every day.

Remarks.—The paralysis of the lower limbs would have rendered the stump uncontrollable if it had not been for the splints, for the shortened member was frequently jerked violently and quickly without his being able to stop it, except with the aid of his hands; but the splints would have been used in any case, in consequence of the valuable hints given in Mr. Callender's recent papers upon important details in surgical practice. Besides being of inestimable value in keeping the stumps at rest and free from pain, it is possible that the use of splints will permit of shorter flaps than would otherwise be necessary, as appeared likely during the progress of this case.

With regard to the elastic compression, associated now with the name of Esmarch, nothing was observed in the present case which could in any way be urged as an objection to the method; on the contrary, the compression was perfect, and was not followed by more prolonged oozing of blood than necessarily occurs under any method. It need scarcely be added that there was no sloughing.

In a case of primary amputation of the forearm in a boy, occurring in Mr. Parker's hospital practice shortly after the present instance, and compressed by the same means, the oozing of blood was certainly a little more prolonged than is usual after the closure of all visible arteries—say a delay of a quarter of an hour was occasioned; but this was not felt to be an objection, as much hæmorrhage had previously taken place, and the amputation was absolutely bloodless.

Some surgeons have anticipated sloughing as a consequence of elastic compression, and others have apparently observed it as a fact; but so far as the experience of this hospital is concerned, nothing but what is perfectly favourable has been seen in connexion with this method in several major and minor amputations.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING HELD AT BELFAST AUGUST 19TH TO 26TH, 1874.

(*Concluded from p.* 313.)

IN the Physiological Department, Mr. Waterhouse Hawkins brought forward some "Observations, with graphic illustrations, on a pair of Symmetrical Bones present with the fossil remains of Iguanodon." These remains occur in the well-known slab from Maidstone, now in the British Museum; and he compared those bones with their analogue, as found with a portion of the fossilised skeleton of Hudrosaurus Foulkii, in the marl beds of the cretaceous formation at Haddonfield in New Jersey, North America. The bones in question had been described by Prof. Owen and others as clavicles; but Mr. Hawkins, in making his restorations for the park of the Crystal Palace, was unable, owing to the great length of the bones, to make room for them in his iguanodon, and he therefore had to abandon them, and make his model in such a manner as would be consistent with the animal being able to walk. A subsequent comparison of the bones with those of the American analogue led to the conclusion that they were abdominal, and the situation which Mr. Hawkins thought they occupied suggested the possibility of the iguanodon being a marsupial animal.—In the discussion, the President (Professor Redfern) said he thought that Mr. Hawkins had, by his illustrations, completely demonstrated his position. Dr. Pye-Smith, on the other hand, said the conclusion at which Mr. Hawkins had arrived was so startling that one would rather be disposed to replace the bones in question in their position of uncertainty than admit, without further investigation, their marsupial character.

The foregoing was followed by a communication from Mr. F. M. Balfour "On some Points in the Development of Elasmobranch Fishes," which was highly eulogised by Prof. Huxley, who said it might appear strange that it should be thought worth while to spend so much time upon such a question as the mode of origin of the young dog-fish, but it should be remembered that the dog-fish belonged to the same group of animals as man, and all the points raised in connexion with the former might be brought to bear on the origin of the latter.

A paper by Professor Redfern "On the Influence of Food and the Methods of Supplying it to Plants and Animals" was now read. Plants, he said, had long since taught farmers and gardeners that they must not only have abundance of food, but in a condition in which they can readily make use of it. In proof of this, he referred to the necessity for the regular use of highly nutritious liquid manure in the cultivation of perfect roses, and the care the agriculturist had learned to take in the application of the proper kind of artificially prepared manure for each crop, and in its use in a form in which the plant could most easily absorb and apply it. In order to show the importance of supplying plants with food, and in a manner that they could easily appropriate it, else it would be lost and wasted, he exhibited a series of specimens of common rape which he said would speak for themselves. These he described and compared. The roots of the poorer plants were small and but little branched, whilst those of the well-developed plants were more thick and well branched through their extension into a soil of mixed bogearth and sand, which was not the case with the former, the soft spongioles of their roots being unable to penetrate the tough clay which a great amount of labour had failed to render porous enough. He compared this condition to persons who never applied their intelligence to the selection of their food or to the methods of taking it. There were few social problems more important than how to acquaint the wife of the labourer and artisan how to expend a share of their income upon food to the greatest advantage, and how to prepare it without destroying its nutritive properties. He then described the mode of cooking adopted by such persons, and the fallacies thereof. The food, he said, ought to be capable of supplying the waste of the body, and of being easily converted into heat and motion. If it failed in these particulars, it would also fail in nourish-

ing the brain, and aiding in the evolution of intelligence, and thus intellectual and bodily power was lost to the community, and deterioration of race was promoted.—Dr. Pye Smith said there was no line of division between the animal and vegetable kingdoms, and the same laws applied to both, as shown by the author's paper.—Dr. John Moore remarked that in no part of the kingdom was Dr. Redfern's advice more needed than in Belfast, where a great amount of suffering, loss of wages, and degeneration was occasioned by deficient food and defective arrangements for its preparation. He referred especially to the large amount of tea (often prepared over-night) consumed by the working classes, and he believed that half of the disease among the mill-working population of Belfast was due to these causes.

Professor Corfield read the "Report of the Committee for the Utilisation of Sewage," which contained an account of the various crops grown between March, 1873, and March, 1874, at the sewage farm which had been the subject of so many of the committee's investigations. The chief point of interest brought out in the report was that during the year in question 37·7 per cent. of the nitrogen brought to the farm in the sewage was recovered in the crop, the amounts during the previous years having been 26 and 41·76 per cent. The differences were chiefly due to the fact that very different quantities of crop were left standing at the end of each year.

As bearing upon the dawn of life on our globe, we must mention that Dr. Carpenter, in the course of a lengthened address, contended that the hypothesis of the foraminiferal origin of Eozoon Canadense entirely accorded with the features alike of the general and of the minute structure of the best preserved specimens of this body, and that it is the only hypothesis which fits all the facts of the case; whilst the hypothesis of subsequent metamorphic change, which has every probability to recommend it, fully accounts for all the appearances on which the anti-Eozoonists rely as evidence of its mineral origin, which, in the face of the new evidence he adduced, was to his mind utterly "unthinkable." What satisfied him also that this was a fossil structure was a small hole which is hardly the size of a pea; yet this was not more extraordinary than that a chemist should be able to give his testimony in arsenical poisoning who had found the hundreth part of a grain.

Prof. M'Alister communicated a paper "On the Tongue of the Great Anteater." He gave a minute description of the anatomy of this organ, and of the special arrangements which enabled it to act with so much effect as a prehensile instrument. The muscle which gives the tongue its enormous power extends from its base in the abdominal region to its very tip, without any tendinous break, and its extreme length enables the animal to project and retract the tongue to a remarkable distance. There is a large salivary submaxillary gland, which secretes a glutinous substance that lubricates the tongue, and causes the ants, when seized, to stick closely to it. He also drew attention to the tongue-pouches, and to the structure of the muscles of the elbow-joint and ankle in several species of anteater.

"Some Points in the Physiology of the Semicircular Canals of the Ear," formed a paper by Prof. Crum Brown, who first described the methods employed for determining the position of these canals. The cavity of the ear was cast in fusible metal, in such a way that the cast could be replaced in the exact position which the cavity occupied in the skull. The position of the canals could then be indicated by means of plates of glass placed on the outside of the skull, so that their surface was parallel to the planes of the canals. Measuring the angles between the surfaces of these plates of glass, the relative position of the canals could be accurately ascertained. Dr. Brown's view of the function of this part of the ear was that it enables us to appreciate, and approximately to measure, the amount of rotation to which the head is subjected. Experiments were tried to show that we possess the power of appreciating and measuring such rotations, and an endeavour was made to show how, upon mechanical principles, the structure of the canals is adapted for this purpose.—Mr. Charles Brook expressed his belief that the function of the semicircular canals was to ascertain the direction from which the sound came.

Dr. Galton exhibited a New Form of Microscope for Physiological Purposes, devised by himself, to aid in the examination of the living tissues of animals. It differed from the ordinary kinds of microscope mainly in the construction of the stage and in the adjustments, and allowed of the examination of the cellular tissue and brain membranes of narcotised living animals. It was stated to be in some respects simpler, and somewhat less expensive, than former patterns.

An elaborate paper was read by Mr. James Byrne, "On the Development of the Powers of Thought in Vertebrate Animals in connexion with the Development of their Brain." The author of this was not a medical man nor an anatomist, and it was mainly a compilation from Carpenter's work on Mental Physiology. It contained nothing new, and was occupied by views now exploded, nevertheless it commanded a most extensive discussion, in which Mr. Charles Brook, Dr. Byrne, Mr. Murphy, Dr. Marshall, Prof. Cleland, Dr. Hare, Dr. Pye-Smith, Dr. McAlister, Dr. Galton, Dr. Moore, and Prof. Redfern took part.

Mr. W. J. Cooper read an interesting paper "On the Composition of certain kinds of Food." Farinaceous foods, he said, were of the utmost importance to children and invalids, whose stomachs are too delicate to properly digest ordinary alimentary substances; and the upper and middle classes are in the habit of using with advantage considerable quantities of such preparations as arrowroot and corn-flour. These substances, being in a minute state of division, break up easily and blend with water readily, and they make the food so gelatinous that the digestive juices can at once attack it. If large quantities of vegetable matter be introduced into the stomachs of delicate children, it becomes very difficult to digest; but there is nothing to prevent arrowroot, sago, and corn-flour from being digested in the case of invalids and children, except in the case of children under nine months old. Excess of substances containing nitrogen has been knowu to produce diarrhœa in some children, as well as in grown-up persons. The nutritious value of starch foods has long been universally recognised. In India, China, Mexico, and other places, nine-tenths of the food consumed is mainly starch. In Ireland it furnishes 80 per cent., in the potato. In England our dietaries are apt to be too nitrogenous, and hence the great value and necessity for assimilative farinaceous food. A complete dietary has not yet been introduced to public notice in the form of food for adults, though Liebig did introduce a food for infants, devised upon chemical principles, to form a substitute for mother's milk, prepared from malt-flour, wheat-flour, cow's milk, bicarbonate of potash, and water. Milk stands alone as a complete natural dietary for infants. The complex nature of Liebig's composition, which the author said does not appear to be much used in England, will afford same idea of the difficulties to be encountered in concocting a complete dietary; and, under these circumstances, it is fortunate, he observed, that the views of a chemist, which, if supported, were well calculated to prevent the use of most valuable and important foods for the sick chamber and the nursery, have met with such decided refutation.

Professor Huxley contributed a paper on the "Development of the Columella Auris in the Amphibia," in which he showed that the columella does not (as supposed by Mr. Parker) arise from a metamorphosis of any part of the hyoidean arch, but is to all appearance an independent outgrowth of the side walls of the auditory apparatus.

This was followed by a paper "On the Development of the Eye of Cephalopoda," by Mr. Ray Lankester.

Professor Redfern then read a paper "On the Effects of Ozone on the Animal Economy." A number of experiments were related in which animals were made to breathe oxygen mixed with ozone, and others made to breathe pure oxygen. The general result was that the respiration of oxygen with a 240th part of ozone for a very short time, say twenty seconds, is certainly fatal; that the same gas when resolved into oxygen is comparatively harmless, even when respired for long periods; that the death from the ozone is not due to a closure of the glottis, but to a congestion of the lungs, with emphysema and distension of the right side of the heart with a fluid or coagulation of blood, frequently attended by convulsions; that if the ozone be respired in a dilute form, animals become drowsy and die quietly from coma, the condition of the lungs being the same except that the emphysema is less marked; also, that animals that have respired oxygen more than twelve hours will now and then die suddenly from the formation of coagula

in the heart, even after they have been in good health for some days.

Other subjects brought forward were "On Spontaneous Generation from a Chemical Point of View," by Professor Debus; "Analysis of Indian Teas," by Professor Hodges; and "The Recent Progress and Present State of Systematic Botany, in connexion with the Development of the Natural Method and the Doctrine of Evolution," by Mr. G. Bentham.

The concluding meeting of the Association took place on Wednesday, 26th August, when it was announced that Bristol would be the place of meeting in 1875.

HOSPITAL SUNDAY AWARD FOR 1874.

NEXT to the difficulty of gathering nearly £30,000 together for the great cause of hospitals and other allied institutions is the difficulty of distributing the sum wisely and well. The Distribution Committee, composed, with the exception of two members, of gentlemen deeply engaged in commercial and other duties, may always calculate upon some indulgence on the part of critics. But for a few years to come criticism will be well employed in perfecting the principles which should determine this distribution. By a rule, which may be wise, medical men, who could certainly form the shrewdest notions of the merits of medical institutions for the relief of the sick and dying, have been excluded from the Distribution Committee, except to the number of two, concerning whom it is stipulated that they shall not be connected with the management of any of the institutions receiving awards from the fund. To busy laymen the determination of the exact merit of a hospital or dispensary must be a difficult matter, and when the merits of over a hundred of these have to be determined in a few short sittings it would be simply marvellous if the result were more than an approximation to the doing of justice.

By what criteria should the claims of a hospital be judged? By the number of its in-patients in relation to the number of its beds? Shall the cost per bed be meritorious as it is high, or as it is low? Shall accumulated funds detract from the claims upon the fund, or otherwise? Shall the general fame of the hospital count for anything?—or shall the poverty or wealthiness of its district be taken into consideration? These are questions that cannot be avoided in any attempt to form a sound judgment of the claims of hospitals. But they do not indicate the criteria which have chiefly guided the Committee. It is not much more easy to judge of the claims of a dispensary. By a Committee of the Hospital Sunday Fund, which went deeply into the matter, it was thought that, as the best criterion of the goodness of the work done by a *hospital* is the number of its in-patients, so the best proof of the value of the work of a dispensary was the number of visits paid to patients at their own homes, it being evident that cases would not be seen at home if, in the judgment of the officers, they were trivial or slight.

But we must judge the work of the Distribution Committee, at least in the first instance, by its faithfulness to the principle of distribution agreed upon at the Mansion House—viz., that the distribution should be based upon the last three years' expenditure of each institution, after deducting the income derived from endowments, realised property, and legacies exceeding £100. We cannot of course pretend to the possession of such perfect data as the Distribution Committee can command. We must use such data as we have, which, however, we believe to be trustworthy. The results are certainly a little curious, especially in the case of the large hospitals. We find that the percentage on the expenditure, *minus property revenue*, as explained above, awarded to these institutions was respectively as follows:—To the Westminster Hospital, 15¾ per cent.; to the King's College, 16½; to St. Mary's, 19; to the London Hospital, 19½; to Middlesex, 20; to St. George's, 20; to University College, 31; to Charing-cross, nearly 40 per cent. It has been suggested by a high authority, that in the greater percentage of the award of the Distribution Committee is to be recognised a tribute to the management and the merit of the fortunate institution. According to this doctrine merit culminates at Charing-cross. And the Charing-cross Hospital must be held up to the imitation of its sister institutions. With all deference to the authorities of this hospital and to the Distribution Committee, this result seems to us a little absurd. Nor can we think that the public will understand why Charing-cross should receive nearly 40 per cent. on its expenditure, while the London Hospital receives only 19½, King's College only 16½, and Westminster only 15¾. King's College has a smaller income from investments, has nearly three times as much to raise yearly by subscriptions, and accommodates a larger proportion of patients to a bed. The contrast of treatment is still greater between Charing-cross and the Westminster hospitals. Charing-cross has 150 beds, accommodates 1352 patients, has an expenditure of £7211, and its property revenue is £4771; consequently, it has only to raise annually £2523, upon which it gets an award of over 39 per cent. The Westminster has 200 beds, accommodates 2000 patients, has an income from property of only £600 or £700, and an expenditure of £7193, upon which it receives an award of 15¾ per cent. Taking the awards of the hospitals as a whole, they seem to us capricious, and in no way answerable to the principle of proportion to the expenditure *minus* property revenue.

The public, and certainly the profession, will be gratified to observe that what we may call fancy hospitals—that is, hospitals for particular ailments—are boldly discouraged this year. Lying-in hospitals and ophthalmic hospitals, consumption and cancer hospitals, are, to a certain extent, excepted. Here, again, there is a striking difference of treatment. Thus the wealthy City of London Lying-in Hospital, almost entirely independent of subscriptions, receives at the rate of 40 per cent. on its expenditure as already defined; while the Queen Charlotte's Hospital, with a quarter only of the property income and quite as many patients, receives only at the rate of 12 per cent.! The British Skin Hospital, Great Marlborough-street, the Hospitals for Stone, for Diseases of the Throat, for Diseases of the Heart, &c., receive nothing; the Committee doubtless being of the sound opinion that such narrow institutions savour rather of personal and professional advantage than of the public good. We are not at all surprised to find that the St. John's Hospital for Diseases of the Skin made no application for a grant.

Coming to the Dispensaries, the inequality of treatment is greater than even in the case of the hospitals. It is gratifying to have to acknowledge that the total sum given to these institutions is £2961 17*s.* 6*d.*, more than double what was given last year. But there is much to criticise in the particular awards. First, we regret to find that the Provident Dispensaries and dispensaries with any provident element in them are treated much less liberally by the Committee than others, no matter what their merit or efficiency. This is distinctly opposed to the recommendation embodied in the Report of Canon Miller's Committee last year. What the Distribution Committee appears to have done is to treat the payments of members of provident dispensaries as if they were income derived from property. They have subtracted it from the expenditure, which is the basis of the award, and the result is that in some cases the award is a pitiable pittance. Provident dispensaries deserved a dif-

ferent treatment from this. Thus the Haverstock-hill Dispensary, undoubtedly one of the best provident dispensaries in London, creditable alike to the medical officers and to the respectable poor who constitute its members, receives £7 12s. 6d., while other institutions which do not do so much or such good work receive £70 or £80. We have not room to criticise the awards in detail, especially as there is so much variety, utterly unintelligible to the uninitiated. One dispensary receives at the rate of 3 per cent. and another at the rate of 20 per cent. A dispensary the income of which *from investments* is little over £20, which has an expenditure *minus* that sum of £870, and which pays between 6000 and 7000 home visits a year, gets an award of £106 15s.; while another dispensary, with an income *from investments* of £627, and an expenditure *minus* that sum of £641, which pays only 1635 home visits, gets an award of £183. There may be deep reasons for such a difference. But the reasons do not appear, and the award is not in accordance with the principle of distribution agreed upon at the Mansion House. Evidently there is still a good deal of chaos in the work of the distribution. There is a decided improvement upon the work of last year, though some institutions have been degraded without any very apparent reason. We trust that all who are responsible for the establishment of this great movement will study the distribution carefully, and take pains to secure that year by year it shall be more equal and unquestionable.

VIVISECTION AT NORWICH.

THE question of vivisection is a very important one; in treating it conscientious and unprejudiced men must avoid certain extremes. On the one hand, they should not insist on stifling the voice of humanity in the pursuit of science; and, on the other, they must endeavour to resist the clamour of morbid sensitiveness.

Experiments are indispensable for the advancement of physiology and pathology, but they may be conducted in such a manner as to save all pain to the animals which are subjected to vivisection. First and foremost stands chloroform: by means of this anæsthetic the poor animals may be rendered insensible to pain, and in most cases this artificial sleep will not interfere with the practical results expected from the experiments. We maintain that, whenever pain can be prevented, experimenters are in duty bound, if no counter indication exist, to save the animals from the pangs of vivisection.

Much has of late been written touching some experiments performed at Norwich during the meeting of the British Medical Association, and an enormous amount of exaggeration and some misstatements have been mingled with the accounts of the event. We have been at some pains in collecting information, and we were fortunate in obtaining the assistance of Mr. Ernest White, who was present in the room where Dr. Magnan injected the veins of two dogs, and where the "scene" took place. Here is Mr. White's account:—

"I was myself present during the greater part of the time occupied by the experiments, and have collected the facts that occurred before my arrival on the spot from three eye-witnesses.

"On the morning of the day in question (Thursday, Aug. 13th) it was known to many members of the Association that, in the afternoon, Dr. Magnan would demonstrate to those wishing to be present the deleterious effects of alcohol and absinthe on the animal economy. Two dogs were supplied by a veterinary surgeon (Mr. Smith) for the demonstration; the one appeared to be strong and healthy, the other emaciated, and not likely to withstand any powerful toxic agent.

"In the presence of about twenty members of the Association, this second animal being tied down with tapes, the right femoral vein was opened, and a nozzle inserted. At this point of the proceedings Mr. Tufnell interfered, and cut the tapes. Only one or two members, however, sided with him, so the experiment was continued, and alcohol injected. The animal soon became intoxicated, and apparently comatose. Up to the time it left the Assembly Rooms, the cardiac pulsations were still evident, although a report is prevalent that the dog subsequently died.

"The more healthy dog was then tied down and prepared in a similar manner, a like incision (small in extent) being made; but in this case absinthe was injected in place of alcohol. The animal was then untied, and epileptiform fits resulted, which passed off after about three-quarters of an hour.

"During this time between thirty and forty members of the Association were in the room. Amongst them I noticed Sir James Paget and several leading men of the profession, who were not opposed to the demonstration. At the conclusion a vote of thanks was given to Dr. Magnan, and the dogs were removed, the one in a comatose condition, the other apparently in its natural state, but somewhat drowsy. I ought to observe that after Mr. Tufnell had been outvoted he returned accompanied by two county magistrates. These gentlemen, however, had no power to act within the boundaries of the city.

"I was myself present from the time of the injection of the alcohol into the dog first experimented on, and can certify that the account I have given you of the manner in which the experiment was conducted is a correct one. The aim to be attained I have stated above. That wanton cruelty was not inflicted on the animals is proved by the fact that there were no piteous howls, as is stated in the *Irish Times*, and that the only pain the dogs experienced was that caused by the small incisions made in the thighs."

We must all allow that, in this case, the reproach of wanton cruelty is not deserved. A distinct purpose was held in view—viz., to ascertain the amount of difference between the effects of alcohol and absinthe, which are both deleterious. The use of chloroform or of any other anæsthetic agent was clearly unadvisable, so that the experimenters cannot be taxed with having disregarded the dictates of humanity. On the other hand, it may be asked whether the scientific results hoped for were sufficiently important to counterbalance the pain inflicted. This is open to a doubt. To conclude straightway from the injections above described to the effects of alcohol and absinthe upon man is not justifiable. We cannot be sure that man will be affected to the same degree evinced by animals; there is, moreover, a great difference between the absorption of certain substances by the mucous membrane of the stomach, and the direct injection into the veins.

It should, however, be mentioned that other experiments upon animals, especially those acting upon the nervous system, are more reliable, as regards the human being, than Dr. Magnan's injections. See, for example, the experiments performed upon frogs mentioned quite lately by Professor Huxley at Belfast.

Great judgment and much humanity should guide us in these circumstances, but we are quite sure that no *wantonly cruel* proceedings can be laid at the door of *any* medical man. The public in general derive the advantage of our experiments, especially as regards the search of antidotes in cases of poisoning by various substances; and it is very ungracious of individuals to turn round and bitterly condemn those who, at a moment's notice, are ready to rescue them from death when by accident they have swallowed a toxic substance.

Whether Mr. Tufnell acted wisely, either in violently interfering and cutting the tapes, or in bringing county magistrates to control purely medical affairs, is certainly open to doubt. There are many ways of protesting against vivisections besides the one Mr. Tufnell chose.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 5, 1874.

THE British Medical Association very properly recognises the importance of Obstetric Medicine by assigning a special place to it, and providing a special Address from a leading obstetric physician. At the late meeting the address was delivered by Dr. MATTHEWS DUNCAN, who took for his subject Puerperal Pyæmia. It would be impossible for Dr. MATTHEWS DUNCAN to deliver an address on this momentous topic, occupying twelve closely-printed columns of the Association *Journal*, without disclosing great stores of thought and information; and the address should be carefully read. But we could wish that Dr. DUNCAN had kept more closely to the matter in hand, and not allowed himself to yield to a certain tendency to descant on collateral subjects and to indulge in occasional moralisings. We must also object to obstetricians speaking of the "fearful ordeal of marriage and childbearing" to young women, and making other statements "awful to women and men." There never was a time when parturition was so safe a process as it is now, or when obstetricians had a right to speak so comfortably and assuringly on the subject. A certain amount of risk, no doubt, attaches to the ordeal of pregnancy and parturition. But the same is true of the estate of celibacy; and it seems to us that men in authority, speaking in a semi-public position, should be careful to avoid using strong adjectives to describe dangers which are being steadily minimised, which must be incurred, and which are borne as cheerfully and courageously as men bear the hardships incident to their calling.

Dr. MATTHEWS DUNCAN strongly objects to the term "puerperal fever," and proposes to replace it by the name of "puerperal pyæmia," not using pyæmia in its crude sense to imply purulent blood, but as a comprehensive word to include septicæmia, ichorræmia, &c.

"Pyæmia," Dr. Duncan says, "occurs in several forms, which are characterised each by more or less peculiar symptoms, but most distinctly by the pathological appearances discovered post mortem. There is that most widely known where you have septic embola, and scattered abscesses caused by them, and perhaps otherwise also. There is that where you have inflammation of the peritoneum and other serous cavities, including the synovial and endocardial. There is that where the mucous membranes are chiefly affected—the muco-enteritic. And, lastly, there is that where the only results found after death are—alteration of the blood, enlargement of the spleen, the liver, and degenerations of their most important tissues, with similar degenerations in other organs. It is this last which, often rapidly fatal, was described by Helm, and is now often called acute septicæmia. These are the cases which the superficial pathology of our young days described as having no post-mortem appearances at all. An autopsy in those days was made by any practitioner, occupied only a few minutes, and the observations made were of corresponding value. Now an autopsy is a matter understood to demand the labour for a long time, often for hours or even days, of an expert. On these fruitless necropsies, where no appearances were discovered and none supposed to be discoverable, was founded, as you will remember, an argument supposed to be of clinching potency in favour of the essential fever character of the disease."

DR. DUNCAN observes that the recent doctrine of puerperal fever rather militates against its being, in the language of FORDYCE BARKER, "an essential fever peculiar to puerperal women, as much a distinct disease as typhus or typhoid."

"The doctrine is antithetical to the essential-fever notion, for it states that pyæmia, or so-called puerperal fever, does not essentially differ from ordinary inflammatory fever, such as is called healthy, except in degree; and that the modes of induction of these feverish states are identical, or nearly so. From the slightest pyrogenous effect or merest evidence of morbility, as discovered by the thermometer, up to the most rapid of Helm's cases of acute septicæmia, we have one disease in different degrees or forms, all depending on a chemical poison of Schmiedeberg and Panum, or on the bacterium of Mayrhofer, of Lister, of Klebs, of Waldeyer, of Heiberg, and of Orth, whether this bacterium be the poison or only its carrier. That there are weighty reasons for entertaining this view must be admitted, and among them not the least is the wonderful results of the antiseptic system of treatment, as not only preventing pyæmia, but as preventing ordinary inflammatory fever."

Dr. DUNCAN, without being able to adhere to the doctrine of the practical identity of puerperal and pyæmic fevers with so-called inflammatory fevers, seems to lean to it, and makes much of the absence of specific notes by which puerperal fever may be distinguished, as typhus and typhoid may be distinguished. We are still old-fashioned enough to believe in a difference between puerperal fever and common inflammatory fever. Whether the difference be merely one of degree of septic element in the *materies morbi*, or in the receptivity of lying-in women, may be a matter of question; but the propagability of puerperal fever will for a long time to come be a belief of practitioners, as it is of Dr. MATTHEWS DUNCAN'S, and will sufficiently differentiate it from all forms of common inflammatory fever. In this connexion, it is remarkable, and deserves to be remembered, that SIMPSON, duly estimating the importance of the putrid element in the etiology of puerperal fever, held clearly its association with an *inflammatory* condition. "He believed that generally, if not always, the material which, when carried from one subject to another, could produce puerperal or surgical fever in a really inoculable subject, was an *inflammatory secretion*, just as the inoculable matter of small-pox, cow-pox, syphilis, &c., was an inflammatory secretion." Dr. MATTHEWS DUNCAN does not believe in puerperal fever taking epidemic forms, and speaks contemptuously of the evidence to this effect. He thinks it would be difficult to find proof of a miasma even in the air of a pestilential hospital, and that the disease prevails according to more or less direct communication with cases of the disease. He does not condemn hospitals, but urges that, whether surgical or lying in, they can and should be kept wholesome. That puerperal fever is something different from scarlatina or any of the other specific diseases he considers proved by HIRSCH, VOIT, and SPAETH, and by FARR, as quoted by ourselves. Finally, Dr.

DUNCAN refers to the importance of the wound-fever view of puerperal fever held by VAN SWIETEN, WILLIS, and other old and recent authors—whether the wound be placental or perineal; to our improved knowledge of the placental wound, and of the veins and lymphatics of the uterus; to the discovery of thrombosis and embolism by VIRCHOW &c.; to investigations into the potency of septic poison; to the influence of various kinds of bacteria; and to Dr. SANDERSON'S researches on the infective product of all acute suppurative inflammations,—as materials out of which our still imperfect theories of puerperal fever or pyæmia must be constructed. The author of the address has to be brief when the time comes for speaking of therapeutics, and he does little more than insist on prophylaxis and disinfection, suitable nourishment, &c. Doubtless these are the principal points in the intelligent treatment of puerperal fever as of the ordinary puerperal state. But the occasion would have justified a more clear expression as to the, at least, uselessness of old remedies that are still believed in by some—such as calomel and opium; and as to the great reasonableness—considering the relation of puerperal fever to such diseases as erysipelas, phlegmonous and diphtheritic inflammation, &c.—of using such remedies as quinine, tincture of perchloride of iron, and the like, in addition to the prophylactic measures so properly insisted on by Dr. MATTHEWS DUNCAN.

THE verdict in the case of JAY *v.* the Gresham Assurance Society must be regarded with satisfaction. The minor questions raised in the issue are such as can be better decided by a jury than by any other tribunal, though all men who have sympathy for their weaker fellows must feel regret that the result could not have been arrived at by some other means, whereby the raking up of the infirmities of Mrs. JAY'S later life would have been avoided.

The case in itself is a simple one. Dr. JAY marries a Mrs. LUPTON, who is possessed of a life interest which produces £1000 per annum. To secure himself against a certain portion of the loss he would sustain by her death, Dr. JAY determines to assure his wife's life for £3000. The sum was small under the circumstances—but three years' purchase. In effecting the assurance, Dr. JAY is assisted not only by the ordinary agent, but by one of the officers of the Society, whose singular advice in the transaction seems to have added somewhat to the complications subsequently introduced into it. This gentleman's notions on the subject of the medical attendant seem to us rather original. He allows the question in the proposal form to be altogether struck out, and advises the applicant for a policy that the question meant that if the life proposed had been attended "within two years by a medical man for something important his name should be given, but not otherwise." This singular interpretation of an important question naturally much diminished the value of the evidence of the medical men who attended Mrs. JAY—then Mrs. LUPTON—from 1864 to 1866. In fact, the views of the Company's own officer would seem to relieve Dr. JAY very much from any responsibility attending the withholding the names of the gentlemen in question.

The issues for the jury were really twofold, although not quite put so by the judge. Was the life assured of sober and temperate habits?—and, if of intemperate habits, was the fact known to Dr. JAY? In regard to the first, there is probably no interrogation of so much importance in dealing with a contract of Life Assurance at its inception, and none so difficult of solution. What constitutes temperance or intemperance is a question which, if put to any number of persons, would receive scarcely two identical replies. Still the medical officers and directors of Assurance Societies are pretty well agreed upon what should be the answer; and, judged by their standard, there can be but little doubt that the late Mrs. JAY could not be regarded as a sober and temperate woman. But then comes the next and, in this case, the greater question: Was the fact of her infirmity known to her husband? And here we are compelled to agree with the verdict of the jury.

There are two objects to be gained by a Life Assurance: one the protection of a family in the event of the death of its natural protector; and the other the protection of one person from loss by the death of another;—and, if sentiment is to be introduced into the question at all, it would seem that our sympathy should go rather with the first than the last kind of transaction. If a man or woman assures his or her life for the benefit of others, the principal contracting party, when the contract has matured, is not here to support his or her part in the transaction, and the contract has to be enforced by others. But when a Life Assurance is effected by one person on the life of another the case is different. The transaction is one of a most commonplace kind, and more like a Marine or Fire Insurance. It is important that the proposer should tell the office all he knows; but it is equally so that he should not suffer by defects in the basis of the transaction of which he is ignorant, and any knowledge of such defects on his part should only be concluded by the most direct evidence. If this were not so a blow would be struck at one of the most important elements in Life Assurance business. Lives are assured daily where the proposers know little or nothing of the inner life of those respecting whom they are about to contract. The case is somewhat different where a man assures the life of his wife; for it might be inferred he would know more about her than any other person could, and when he also happens to be a medical man the inference would be stronger. On the other hand, it is perfectly well known that we are generally more blind to the defects of those who are most nearly associated with us. Hence, as we have said, the proper tribunal to submit any difference of opinion arising in such a case is a jury, and the jury in the case under consideration have relieved the proposer of all responsibility with regard to any misrepresentations that may have been made to the office.

One point in this matter should have been more fully cleared up, and that is the extra premium charged by the Assurance Company. So far as our knowledge goes, it is not the custom of Assurance Companies to charge an extra premium for assuring lives of women, unless the assurance is effected at the time of pregnancy. To deal fully with this point would be to open rather a large question; still it would have been more satisfactory if we could have had before us the real reason why the extra in

this instance was put on. If it were a custom of the office to make a charge generally on the lives of females, it seems odd that it does not appear in their published prospectus; and if this case has been treated as an exceptional one, for what was the extra premium charged?

The large sum paid—over £8,000,000 per annum—by Assurance Companies in claims under their policies renders it unnecessary for the public to have any uneasiness as to the way in which their engagements will be dealt with by the various boards of directors. The disputing of a policy is a most serious question; and, unless the amount is very large, little real benefit arises to an office even if it succeed. On the other hand, the directors are bound to see that the claims they pay are reasonably fair. To act on any other principle would be simply to encourage fraud. There is really no division of interest between the Companies and their policyholders. If improper claims are paid the funds of the Company are diminished, and the profits to each member accordingly decreased. In fact, it might even become necessary to increase the rates. No doubt the Gresham Company and their directors, rightly or wrongly, thought they had been misled by Dr. JAY, and that it was their duty to refuse payment of the assurance. Until the facts of a case are sifted in a court of law it is difficult to know their real value; but sufficient has come out in this case to show that the Gresham advisers had strong grounds for their views; and if the result induces greater watchfulness on the part of Assurance Companies, it may also teach the assuring public a lesson as to the way in which they should act in these important transactions, and the risk they run by an absence of proper frankness.

WITH the blending tints of Nature the human mind seems to have little sympathy. The transitions of the outer world are by it either ignored or exaggerated. It divides wherever it can distinguish, or else it confuses whatever it cannot separate. Knowledge moves onward with a wave-like swell, in which these stages successively alternate. The present tendency of thought is to recognise, and, recognising, to insist on, the essential community which underlies all distinctions of related form, and to lose sight of or ignore their essential diversity. The enunciation of this doctrine, with all the energy and clearness for which he is so famous, to illustrate and enforce it from the long series of thinkers and the wide range of thought, was the object of the address which Prof. TYNDALL delivered at the meeting of the British Association at Belfast. The address would seem to have entranced his audience, and may well, in its clear enunciation, comprehensive grasp, and earnest appeal, carry with it the reason and sympathy of the reader. It is the boldest attempt which recent years have witnessed to preach the gospel of materialism—a materialism which reduces mind and life to the phenomena of what we are accustomed to understand as material forces—which, tracing a continuous series from the atom to the man, concludes that the one has been evolved from the combinations of the other. The mystery of life, of consciousness, and the deeper mystery which underlies all nature, he admits, but practically denies them any significance or any value as sources of knowledge, even of its own limitation. Reduced to its simplest terms, the doctrine of evolution is, that in the process of nature there are no gaps which imagination, in its scientific use, cannot overcome; where we can see no break there must be continuity, and continuity implies unity in essential nature. Men of science claim, and claim justly, the right to frame such a hypothesis of the universe, but are compelled to admit that it is at present insusceptible of proof. Probable though that hypothesis may be, it must be a question to conscientious thinkers whether it is sufficiently consistent with all our knowledge, and whether it possesses such a degree of probability as to justify the aggressive movement on other creeds, of which the address at Belfast constitutes no inconsiderable step. Religion is to be reduced to a pure emotion, which is to exist independently of knowledge; for of knowledge physical science is to be the exclusive source, and physical science is admitted to be as unable to support as it is to explain the religious instincts of mankind. These are to be relegated to the "creative faculties of man," who is thus to bow down before the work of his own mind.

From the doctrine of Dr. TYNDALL—none the less arrogant that it comes to us in the garb of humility—it is worth while to revert for a moment to the address of Dr. REYNOLDS at Norwich, to which we alluded in THE LANCET of Aug. 22nd. It constitutes a protest against Dr. TYNDALL'S views; none the less effective in that it preceded their enunciation in point of time. In the mysteries of life and of consciousness Dr. REYNOLDS finds facts of at least as much significance as the apparent continuity which would seem to override them, since they are facts of which, in the laws of the inorganic world, no conceivable explanation can be found. To these facts he gives at least the weight that they should keep our reason free to accept any light which may fall upon those mysteries, from whatever source, whether within or without the line of "irresistible prescription" which the "interaction of organism and environment," aided by a powerful imagination, may supply. With mind thus receptive, he finds that many facts of life and disease are to be explained best, or only, on the assumption that these mysteries involve that which differs altogether from the force and matter which we meet with elsewhere, and which are, it is true, linked with our recognition of the phenomena in question. He believes that if we duly recognise this, our knowledge of disease will be wider and clearer, and our power over it greater; and that these objects will be further aided by the recognition of the essential distinction of some other facts which modern thought would blend together.

The position of Dr. REYNOLDS appears to us, we confess, to be the more truly scientific of the two. In the pride of knowledge it is very easy to lose sight of the significance of the unknown—even of the fact that there is a realm, an "ocean of nescience," bounding and surrounding our little area of science. There are abundant mysteries on which our present knowledge does not throw the faintest ray of light—does not even indicate the quarter whence light may be expected. To ignore them, on the assumption of their possible future inclusion among other facts which at present seem totally dissimilar, is less wise, less philosophical, less scientific, than to recognise that there are limits beyond

which knowledge has not passed—regions in which science has at present gained no foothold, and has furnished no reason to think she ever will.

THERE cannot be a doubt as to the existence of a very serious amount of discontent in the Army Medical Department. The number of communications we receive from members of that department scattered over various parts of the world, all breathing the same spirit of dissatisfaction, proves how general and widespread that feeling is, however much the writers may differ as to the methods by which it may be best met and overcome. And the expression of discontent is not limited to this. So many pamphlets and publications of various kinds reach us that we are unable to afford the necessary space for noticing them all. We have now before us a publication from India, bearing the signature "Key," a portion of which has already appeared in the *Army and Navy Gazette*. The writer discusses with much judgment the elements of strength and weakness in the regimental and general staff systems respectively; and he traces the successive changes that have taken place in the service since Sir ANDREW SMITH'S *régime* to the present time. Instead of getting their just and reasonable requirements established on some definite and secure basis, the members of the Medical Service are doomed to find themselves resting on the quicksand of uncertainty as to their present position and future prospects. What was conceded yesterday is withdrawn to-day; and of late matters have proceeded from bad to worse. If Lord CARDWELL had been bent on demonstrating the impracticability and unpopularity of his new scheme he could not have succeeded better than he has done. He imposed extra work and responsibility on the department, and summarily deprived medical officers of their regimental appointments with the avowed intention of benefiting the State and not them; and in order that there should be every incentive to them to undertake their additional work with cheerfulness under such circumstances, he seized this opportunity for abolishing their privileges and lowering their status. It was pretended that under the new system medical officers would enjoy greater power and independence within the sphere of their own duties. But what happened? The *Victor Emanuel* was fitted and equipped as a floating hospital, and for nothing else; but a military officer was put on board as the commanding officer. And the same spirit dominates throughout the service. There is little or no advancement for the doctor as such. The medical officer does not find himself in the same relative position, nor does he obtain the same consideration, as officers of other branches of the service enjoy. The rights and privileges conferred by Royal Warrant upon officers of the Royal Engineers or Royal Artillery would never have been tampered with or annulled after the fashion in which those of the Medical Service have been treated. The medical organisation of the German Medical Service has been vastly improved of late, and the members of that service now occupy a position of power and independence such as they could not have expected to hold a few years ago. This has been brought about by their late wars; and the same thing will be brought about in the same way in the English service, but probably not before a break-down has occurred. The writer of the publication before us recommends the formation of a Royal Sanitary Corps by the amalgamation of the Army Medical and the Army Hospital Corps, which shall be complete in itself, capable of undertaking all the duties appertaining to the sick and wounded, and composed of so many divisions to move on home and foreign service like brigades of artillery. Be the scheme what it may that is to be adopted, of one thing, we repeat, there can be no doubt—viz., that something must be done to remedy the existing uncertainty and discontent.

WE may now, with some show of reason, hope that the epidemic of cholera, which has been so long prevalent in Europe, is coming to an end. Such prevalence of the disease as was lately reported in Prussian Silesia would seem to be but local outbreaks of no magnitude, and to represent the last flickerings of the epidemic. No signs are reported of that diffusiveness which characterises the epidemic in its periods of migration; and, so far as past experience may be applied to the present, there is reasonable ground for belief that the disease is dying out in Europe. Unfortunately, the data for our forecast are by no means so precise as we would have had them to be; and while making it we have the uneasy consciousness that they may be to some extent erroneous. Our judgment is guided rather by the reasonable certainty that cholera has not spread this year along any of its customary routes from central Europe than by very definite knowledge of its state of prevalence in the infected parts of Prussian Silesia. We had hoped that the proceedings of the International Sanitary Conference would have given us precise information of the present state of cholera in Europe. But the Conference, while devising a plan for observing facts over a third of the world's sphere, and focussing its scientific attention on places several thousand miles away, ignored the data under its nose (if Conferences may be presumed to have a combined nose)—data which epidemiologists were craving for, and which would probably have completed the history of the great epidemic of 1864–74. This was the less pardonable in face of the reticence of some of the more active States in the Conference as to cholera in 1867–68, which should, if the Conference was to touch on scientific historical data at all, have led to some protest and better promise for the future.

The epidemic now ending has passed under observation as no previous epidemic has passed; and its history, when it comes to be written, should have a scientific and practical importance proportionate to the large opportunities there have been for watching the progress of the disease. How such a history is to be obtained while the matters relating to it still remain fresh in mind might well occupy the serious attention of the Epidemiological Society during its next session. Beginning in Western India in 1864, the migrations of the epidemic in the three following years form a study of unsurpassed interest. Its spread in Southern Arabia and the Hedjaz at the beginning of 1865, and subsequent diffusion from Mecca, as from a focus, throughout Eastern Arabia, Mesopotamia, and Persia on the east, and Nubia, Egypt, and the basin of the Mediterranean towards the west; its extension in Eastern and Western Africa; its

spread throughout Europe; and its journey across the Atlantic and diffusion in the western hemisphere,—all form a series of studies in historico-geographical pathology which deserve to be written in the fullest detail. Not less worthy of further study is the reappearance of the disease in Europe in 1869, after it had apparently died out. The recrudescence theory of Russian physicians takes a very different aspect when read in the light of the papers relating to the diffusion of cholera recently published by the Local Government Board. These give us to see the cholera outbreak of 1869 in Europe following in sequence upon great movements of the disease in India and Persia—movements unknown or unheeded in Russia.

Medical Annotations.

"Ne quid nimis."

ST. GEORGE'S HOSPITAL.

DURING the past three months, as most Londoners know, this institution has been entirely closed, for the purpose of making certain alterations in the drainage-system of the building, as well as subjecting the entire establishment to a thorough cleansing and repairing. Neither of these latter processes had been performed for upwards of twenty years, and as the main drain was found to run immediately under the centre of the building, the Committee have exercised a wise discretion in putting their house and its belongings in order, even if they have to trust to the generosity of the public for the payment of the bill. Proceeding from below upwards, the entire drainage arrangements have been altered. The old brick drains that ran under the building have all been removed, and a line of earthen piping has been laid round the house, and of course exterior to it. All these drainage-pipes are ventilated by tubes fixed to the outer walls, each and all of which open beyond the highest part of the roof of the building. This is, in fact, the way in which all house-drains ought to be ventilated. All closet-pipes are connected outside the house, so that if any obstruction occurs the inmates are not inconvenienced in any way. An important alteration has been made in some of the wards by cutting through an arch in the main wall, thus isolating by double doors the closets, lavatory, and sink, and giving them ample and independent ventilation. Additional bath-rooms have been erected, and the nurses' quarters have also been fitted with baths. The kitchen arrangements have been entirely remodeled, and a very large range has been erected, which, with a set of Warren's cooking-pots on one side, and several coppers on the other, ought to afford ample accommodation for 700 or 800 patients. The Committee elected not to use gas for cooking purposes, mainly, as we are informed, on the score of cost.

The very convenient day room at the top of the building has been much brightened, and improved by a judicious process of colouring and other minor alterations; one of the surgical wards has, for experimental purposes, been stripped of the lath and plaster and faced with Parian cement, and all the other wards, with their blue coating, have a cheerful aspect. We may remark, parenthetically, that a very simple means of communication between the hall porter and the wards has been in use here for some years, which is worthy the attention of other hospital authorities, as more trustworthy and quieter than the old scheme of speaking-tubes, which are frequently employed as safety valves to the exuberant spirits of junior students.

The Committee, aided by their able and energetic secretary and architect, Mr. Todd and Mr. Salter, appear to have done all that was practicable in improving the sanitary condition of a hospital built before the birth of sanitary science. The institution will be open for the reception of patients on the 9th inst., and we gladly wish for it a renewed lease of usefulness and prosperity.

SANITARY SCIENCE AND SAINTS.

As touching pilgrimages in their religious and devotional aspects, we have nothing whatever to say. People have a perfect right to take part in such ceremonials or to stay away from them; and in either case no one should interfere with their motives or method of obeying the dictates of their conscience. To a physiologist and to one acquainted with the laws of hygiene, however, a perusal of the statements recorded of the mode of life led by such saints as St. Edmund, who was some 600 years ago Archbishop of Canterbury, cannot fail to throw some light on the causes of the moral and physical diseases of those times. Dr. Edmund Rich, the saint in question, must evidently have been a single-minded man, entirely devoted to his work, learned, pious, zealous, and self-sacrificing in the cause of his church and religion. After struggling against the ecclesiastical abuses of that period, he retired into exile at the monastery of Pontigny, and shortly afterwards died at Soissy. His shrine at Pontigny is the object of the latest pilgrimage. How far the stories told of his life in childhood and manhood be true, we know not; probably most of them are apocryphal; but this much is probable, if not certain, that he underwent the severest discipline and privations, and practised all the austerities of a religious enthusiast of that age. If but a small portion of what is recorded of him in these respects be true, the wonder is that his health or his reason, or both, did not give way. He acted up to his lights no doubt, but it is ridiculous to suppose that the intellectual faculties can be properly exercised when the brain, like the body, is starved and wearied by repeated and long-continued fastings and watchings. The habits of isolation and introspection which saints of all ages have practised lead to a kind of selfishness, which although disguised, is not the less real on that account. Frequent self-examination may soon degenerate into a spirit of dreamy unsympathetic misanthropy. But what we contend is, that an impoverished brain and nervous system is unfit to discharge its functions aright, that the natural become morbid stimuli to a system under a state of great mental or religious tension, and that the voices and visions which occur under those conditions of exaltation, which are in reality states of temporary and ephemeral excitement under depression, must be regarded as the outcome of a diseased, and not of a normal and healthy working brain. At first sight a man like John Stuart Mill would seem to have been the very antipodes of the Saint of Pontigny, and yet there is more similarity in the mental and moral natures of two such opposite characters than is at first sight apparent. Both had enthusiastic and impressionable natures, with a dogged devotion to the cause they embraced—both were men of great learning and industry, and proof against, because they had no pleasure in, the ordinary pleasures of life; but one gave himself up to the logic of his intellect, the other is said to have turned his back on mathematics in order to throw himself into the cause of religion. Both underwent the very worst early training possible; the intellectual faculties being exclusively cultivated in the one, and the intellect and emotions in the other. The one became absorbed in a religious passion, and the other in a passion which was to him a religion. And, to our minds, neither the one nor the other was a healthy, well-balanced man. Moreover, when we read of the un-

changed clothes, the unkempt persons, and the other concomitants of the saints, we are compelled to believe that "the odour of sanctity" was anything but pleasant, and that they must have been the sufferers from many a disease, and the vehicles of many an animal poison to those they visited, from the neglect of the wholesome advice given to Naaman, to "wash and be clean."

THE RESPONSIBILITIES OF HOSPITAL AUTHORITIES.

SEVERAL events have recently occurred in connexion with the administration of the metropolitan hospitals, and also of those in the country, which point to the desirability, if not the necessity, of determining what may reasonably, be regarded as the liabilities and responsibilities of those who undertake the general and medical supervision of sick persons resident in the institutions over which they have charge. It has not unfrequently happened that house-surgeons and other persons in charge of casual out-patients have been charged with malapraxis, and even with manslaughter, on account of alleged carelessness or neglect in the treatment of cases taken to the hospitals as accidents and casualties. Fortunately, many of the charges have been abandoned as altogether unwarrantable and unjust, and others have been dismissed with a mild caution. It has, indeed, very rarely happened that a distinct charge of malapraxis or of wilful neglect could be maintained in a court of law. Yet, when an inquiry arises, how frequently does a coroner's jury avail itself of the opportunity of uncivilly reprimanding in some manner or another the hospital authorities.

Quite recently an inquest has been held on the body of a man who was admitted into St. Thomas's Hospital suffering from intestinal obstruction, on which in a few hours delirium supervened. The obstruction was relieved, but the delirium continued, the patient being restless and persisting in getting out of bed. A male attendant was specially appointed to watch him, and to restrain him if necessary. About two o'clock next morning the patient became suddenly excited and delirious and jumped out of bed, but the attendant at once attempted to prevent him leaving the ward. A fierce struggle ensued, in which the patient eventually proved victorious. When the man had got out of the wards the alarm was given and the outer doors were locked, and the porters set out in search of the patient, who was supposed to be dressed only in his shirt. But, in the meantime, the patient had entered one of the rooms of the resident officers, and had dressed himself. He was then lost sight of for a considerable time; but it appears that, about two hours afterwards, the porter who sleeps in the medical school, which is at a considerable distance from the hospital, was awakened by a noise. On looking out of his window, he saw a man, whom he supposed to be a burglar, and sent his wife out for a policeman, while he himself descended to secure the man. At that moment the unfortunate patient attempted to escape out of a window and fell into the area, a distance of twenty or thirty feet. On being taken up he was found to have sustained a comminuted fracture of the bones about the left ankle-joint. He rallied a little after this, but died next day of exhaustion after a sudden outbreak of violent delirium.

From this account it will be seen that the lively description of the organised pursuit as related in the daily papers is a piece of gratuitous invention. At the inquest, however, the jury, notwithstanding the sensible protest of the coroner, appended to the verdict of "Accidental death" a long rider in which they strongly animadverted on the conduct of the hospital authorities in neglecting to provide what they (the jury) deemed proper supervision and protection in such cases.

Now, although we do not maintain that the authorities were entirely free from blame, or that they were not called upon to exercise a little more care in having a specially trained attendant to watch a patient who was suffering from delirium and who made constant attempts to get out of bed, yet we do not think that there was *great* negligence, or even negligence enough to call for any special reproof. We all know or have heard of patients thoroughly cared for and properly attended to who have been seized with delirium, and by eluding their attendants, or even by overcoming them, have been seriously injured, or even killed while struggling or rushing madly about. Surely the authorities are not seriously to blame because the ward attendant was not strong enough to overpower a temporary madman. And we doubt if things would have been much better had the patient been locked in a private ward or allowed to die while struggling in a strait-jacket. At the worst it was an unfortunate accident, which would not have occurred if the patient had not been the subject of delusion and delirium.

THE OUT-PATIENT DEPARTMENT OF THE LONDON HOSPITAL.

OUR readers will remember with what care and consistency we have checked from time to time the tendency to exaggeration in the representations of the amount of medical charity in London, and of its pauperising tendency. The disposition to extremes in human nature is strikingly illustrated in this matter. First, there is a boundless pity for the sick poor, and then, with a violent swing of the pendulum, comes a disposition to question the existence of thousands in this huge metropolis whose sickness and poverty are real and pitiful, and to assert that provisions for the relief of sick people are at once useless for this purpose and powerful for the manufacture of pauperism. By a system of statistics of the most questionable character we have had presented to our unbelieving eyes an army, exclusive of paupers, of 1,200,000 recipients of medical charity, a large proportion of whom were not really and truly proper objects of such charity. Such bloated statistics have had this good effect, that they have suggested to individual hospitals the duty of some attempt to ascertain the truth as to the extent of their out-patient department and the fitness of the applicants. When the new school of philanthropists, which may be called the critical school—that scarcely believes in sickness, much less in poverty,—wanted to give an impressive idea of medical pauperism on a huge and hopeless scale, the scene was generally laid in the East-end of London, and the London Hospital was the factory where the pauperism was created. Very properly the authorities of the London Hospital have subjected their out-patient department to a searching inquiry by a very competent sub-committee, including Dr. Herbert Davies, Dr. Andrew Clark, and Mr. Jonathan Hutchinson, and the result is a report which, for carefulness of statement and conclusion, may be commended to others. The general conclusion arrived at is, that "the number of unworthy applicants is so small that the rejection of them may be attained without trouble or expense to the hospital"—in other words, by imposing a little more duty of inquiry on governors, the details of which are suggested by the sub-committee. The sub-committee—after excluding cases the fitness of which cannot be doubted—viz., accidents, ex-in-patients not yet well enough to be wholly discharged, minor casualties, cases of special departments, renewed letters, and persons supplied on an emergency with medicine not regular patients

—concludes that the number of genuine out-patients of the London Hospital is only 43,808, and that only 16,094 of these could by any criticism be suspected of unfitness. A striking proof of the reality of the suffering to be relieved in the out-patient department is in the fact that 700 very severe cases a year are taken out of it by the staff into the wards, though having no other than out-patient letters. The sub-committee, however, end their report very properly by making suggestions for the elimination of any improper cases, the chief of which are that governors should sign a statement that the applicant is known to them, or has been nominated to receive a letter by some respectable person to whom the applicant is known; or that an arrangement should be made whereby governors, so desiring it, should authorise the hospital itself to issue tickets on their behalf to ministers of religion, lay agents, or charitable associations. There is a morbid want of imagination in conceiving of this population of four millions without the thousands to whom the out-patient department is a boon. What is needed is that it be well ordered and well officered, that unfit cases be excluded, but that the cases relieved be really well studied and treated.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES.

DR. BUCHANAN'S discussion of the permanent hospital provision which Birmingham should have for infectious diseases, contained in the report to which we have already had occasion to refer (THE LANCET, August 29th), is full of instruction for urban sanitary authorities. It is very much to be regretted that official reports of this class are not more readily accessible to the public, and Mr. Sclater-Booth would do a most welcome service if he would relax the departmental rules which appear to prevent the general and immediate publication of these important documents. No doubt these reports are primarily for the guidance of the local authorities to which they are addressed, but it is rare that they do not contain lessons of general application. The first difficulty, it would seem, that Birmingham has to meet in providing hospital accommodation for infectious diseases is one of site. The borough has not many available vacant spaces, and those which are most fitted for use are in such contiguity to dwelling-houses that the proposal to build infectious disease hospitals upon them has led to a public outcry. In this outcry the medical profession of the town have very generally concurred; in fact, the profession in Birmingham have adopted the popular view of the question. The position taken by the objectors is a somewhat paradoxical one. It is that an infectious disease hospital built near to dwelling-houses would increase rather than diminish the dangers of spread. The consequence has been that the Corporation has been prevented obtaining any suitable site for a hospital except in the workhouse grounds, and thus the hospital accommodation devised for the general public has been brought into most undesirable connexion with the pauper hospital accommodation. Upon this question of site, Dr. Buchanan has the following weighty observations:—

"As regards site (and this applies equally to the sites of temporary and of permanent hospitals), the first condition is that it should be readily accessible to those who want accommodation in the hospital; and the opinion given by some medical men in Birmingham—that an infectious hospital 'should be removed as far as possible from human habitations'—can only be considered a figure of speech. To carry a person suffering under acute disease to any unnecessary distance from his home to hospital is to excite in his friends objection to the transference, and wantonly to expose the patient himself to pain and danger. As regards the distance which, on medical grounds, it is right to secure between adjacent inhabited houses and an infectious hospital, I know of no evidence as to what proximity, if any, can be a danger to persons not actually under the same roof, but there is abundant evidence to show that very short distances suffice to prevent direct infection. I say 'direct' infection, because such infection as may arise from the use of infected cabs and ambulances, or from dealing with patients' infected clothing is, as being merely a question of discipline and foresight, obviously not here in question. The site for the hospital should be such as would be the healthiest for a dwelling-house; it should be where an abundant supply of good water can be insured to it, and where proper means of drainage and excrement-disposal can readily be had; and the size of the site should be sufficient to allow of temporary wards being erected on it in case of need."

Dr. Buchanan appears to be of opinion that permanent hospital accommodation for a town community should be provided at the rate, roughly, of 1 bed per 1000 population; and that it should be arranged so as to admit of the separate isolation of three several kinds of disease—say small-pox, scarlet fever, and enteric fever,—with supplementary accommodation for other incidental infectious diseases. For Birmingham, with its population of about 232,000, he thinks, from a study of the quantity of infectious disease ordinarily present within it, that 266 beds should be provided, divided into two hospitals. Each hospital should consist of an administrative block, and on one side of it a pavilion of two wards, of 20 beds each (male and female), for small-pox, with vacant ground for temporary extensions in case of an epidemic. On the other side of the administrative block there should be, first, a fever pavilion; and, next, a scarlet-fever pavilion, with vacant ground near it. Each pavilion should consist of two wards (male and female), of 20 beds each; and each should have attached to it two adjacent smaller wards, in which noisy patients, patients attacked with erysipelas, and cases of other acute affections mistakenly sent in for small-pox or fever, could be placed.

This, briefly, is the scheme suggested by Dr. Buchanan for Birmingham—a scheme founded on the principles contained in the memorandum of the Local Government Board on hospital accommodation to be provided by sanitary authorities.

THE STATE CRIMINAL LUNATIC ASYLUM AT BROADMOOR.

WE remarked last week, in a review of the Annual Report on Lunacy, that this establishment ought to claim a special notice, as the class of inmates received are, as compared with other lunatics, of a very exceptional character. At the end of last year there were in the institution 519 patients, 414 of whom were male and 105 female, and of these, 279 males and 77 females had been acquitted on the ground of insanity, or found insane on arraignment or before trial, and 135 males and 28 females were certified to be insane whilst undergoing sentences of penal servitude. Of 20 patients that are reported to have recovered more or less completely, 18 had either attempted or had committed murder, but none are of the convict class, as they have either been acquitted on the ground of insanity or found insane on arraignment or before trial. There were two escapes during the year, in one of which the patient struck his attendant on the head with a stone while out walking, and afterwards nearly strangled him. In the second case the patient was one of a gang of labourers employed on the farm, who escaped by jumping the hedge and reaching a wood. Neither of these patients was retaken, and the Commissioners considered that in both instances proper supervision had not been exercised. The mortality has, as usual, been very low, the asylum has been entirely free from epidemic disorders, and the general health of the patients has been remarkably satisfactory. The chief point that forms the subject of special comment in this report is

the considerable increase in the number of instances of seclusion among male patients as compared with the return given last year. Men so secluded pass the whole of their time in darkened rooms, except for periods of from one to three hours daily, when exercise on the separate system is allowed. The Commissioners express themselves very emphatically on this point, and consider that all the bad qualities of such patients as those now under seclusion are aggravated by this mode of dealing with them, inasmuch as the proper treatment of the lunatic appears sacrificed to the mere safety of the criminal. The remedies appear to be, an addition to the staff of attendants employed in this department and an increase in the number and extent of secure and cheerful grounds for air and exercise. Dr. Orange, the energetic superintendent, is of opinion that urgent need exists for a more distinct separation between the rapidly-increasing class of patients whose insanity has been mainly due to a life of habitual crime, and many of whom are of a most dangerous character, and that other class of patients, ordinarily well-conducted, whose crimes have been the result of their insanity. The Commissioners endorse this recommendation, but as its adoption involves the construction of distinct buildings, nothing has been done, although it appears that the principle was recognised by the Lunacy Board and a report made thereon to the War Office no less than fourteen years ago, before, indeed, the Broadmoor Asylum was established. The special report concludes with the recommendation that a third medical officer should be appointed. We believe that the duties of the medical officers at this asylum are more onerous and attended with more risk than those of any other institution in the kingdom, and for such work a high scale of remuneration and a sufficient staff should be eminently matters of course.

THE CONDUCTION OF HEAT BY THE SKIN.

THE researches of Senarmont, many years ago, showed that the conduction of heat by crystals was, except in those of the regular system, not the same in all directions. De la Rive and Decandolle observed a similar difference in the conductibility for heat of different kinds of wood; the undulations of heat being propagated best in the direction of the length of the fibres, and worst at right angles to them. Griess made experiments on many other parts of plants, as the leaves, and then proceeded to investigate animal structures, as the stomach and claws of animals, and in all instances found that wax, spread on the tissues round a wire thrust through both tissue and wax, melted in the form of an ellipse when the wire was warmed. Dr. Klug has recently (*Zeitschrift für Biologie*, Band x., Heft 1, 1874) repeated those researches, examining in particular the different parts of the skin of man. Instead of wax, however, he used the more easily melting cacao butter, mixed with a little oil. The piece of skin was equally stretched, and a brass wire passed through it. The skin of the anterior part of the forearm, and to a somewhat less degree the skin of the back part of the forearm, gave the best marked elliptical figures, though by no means equalling those of wood. The direction of the long axis varied considerably in different cases, so that no general rule could be laid down. The skin of the chest and front part of the thigh furnished a much less elliptical isothermal curve, and that of the back and belly was nearly circular. That of the palm of the hand was a perfect circle. Experiments made with the epidermis and corium of the above parts, separately, showed that the epidermis conducted heat in all directions equally well; the line of melting of the wax was therefore circular. The corium behaved itself in this respect like the skin as a whole.

Helmholtz's researches showed that 77·5 per cent. of the whole heat eliminated by the body passes off by the skin; the question therefore arose, what influence the different layers of the skin exert on the transmission of heat? The amount of heat given off from the skin depends on the extent of the surface, and on the difference between the surface and its environment; and, further, as the capacity for conduction is inversely as the square root of the distance from the source of heat, the thickness of the skin will also have some influence. For the particulars of Klug's mode of experimenting we must refer to the original, but his results are, as was already known, that the fat is of immense value in protecting the body from loss of heat, and hence its accumulation over breast and belly; and, secondly, that the epidermis is a singularly bad conductor of heat, which he attributes in great measure to the arrangement of its cells.

HYDROPHOBIA.

CASES of hydrophobia appear to have become far too common to be pleasant of late, in this country as in America. A stray paragraph in the papers reporting the death of some unfortunate victim from this disease is constantly meeting the eye. The circumstances attending the death of a man named Thomas Ogden, of Newton Heath, as detailed in the evidence adduced at an inquest before the coroner for Manchester, were peculiarly distressing. The unfortunate man, it appears, was bitten whilst caressing a strange dog, which he subsequently took home with him to his house, where it again bit him. His wife turned the dog out of the house the same night, and the animal has not since been heard of. It is fearful to contemplate the possible mischief which a mad dog may cause whilst thus wandering about. The man's wounds were not cauterised, and one on the hand subsequently became very painful and inflamed. The symptoms of the dire malady soon began to develop themselves, and the man, with a clear discernment of his impending fate, took leave of his wife and family, and sent them away. The wretched sufferer then, under the influence, probably, of maniacal delirium, stripped himself naked, and, armed with a poker, threatened the lives of those who strove to enter his house. At the end of two hours he was secured by the police making a rush at him with rugs in their hands, with which they enveloped his body, and eventually succeeded, with their aid, in securing him until he was conveyed to the infirmary, where he soon afterwards perished from hydrophobia. A conflict of this kind may be easily imagined, and it would require both courage and coolness to effect the capture of a man whom the bystanders, no doubt, considered might, in addition to other injuries, inoculate them with the poison of hydrophobia.

"SLOPS" AND SEWAGE.

A CURIOUS question was broached in the Public Health Section at the Norwich meeting by Dr. Cornelius Fox, the medical officer of health of the Chelmsford combined sanitary district—namely, the distinction of "slops" from sewage. He had, it appeared, communicated with the Local Government Board on the subject, and had received an official reply to the effect that "mere slop-water, without fæcal matter, is not sewage within the strict meaning of that term," and that it would not be illegal, under ordinary circumstances, to convey slop-water into a canal communicating with a river or with the sea, or into a water-course. Any nuisance, however, created by the adoption of such a course would come under the operation of the Nuisances Removal Acts. This opinion, Dr. Fox believed, at once relieved many towns and villages—such, for example, as con-

veyed no excrement into their sewers—from difficulty in the disposal of their sewage, this being merely slop-water. They might at once, he thought (and he saw no objection to this), follow the old course, and turn it into the nearest stream, provided water from the stream were not used for drinking below the place of entrance of the sewage.

We have considerable doubt as to the communication of the Local Government Board admitting of this interpretation, and we are by no means assured that the explanation of the law given by the Local Government Board is accurate. Certainly no sanitary authority is authorised to make a sewer so as to drain direct into any stream or watercourse (Sewage Utilisation Act, 1865, sec. xi.), and the legal definition of "sewer," we apprehend, takes in almost all modes of conveyance which a sanitary authority can well adopt. Again, in the case referred to as a precedent upon which the Local Government Board founded its distinction between "slop-water" and "sewage," the words used by the judge in regard to sewage, as quoted by Mr. Lumley, Q.C., in his "New Sanitary Laws" (ed. 1871), are "fluid and feculent matter." But surely the judge in this case did not mean to restrict the term "feculent" to excremental matter. Feculent means excremental matter in a secondary sense only, its primary sense being "abounding in dregs or sediment," or, as Webster has it, "foul with extraneous or impure substances, abounding with sediment or excrementitious matter." So recent, apparently, is the extension of the term "feculent" to excrementitious matter, that Bailey does not give to the word this meaning. Local authorities, we fancy, will be well advised to hesitate before they act as to "slop-water" as Dr. Cornelius Fox thinks they may.

THE COMMISSION ON SCIENTIFIC INSTRUCTION.

THE last report of the Commission, which has just been published, enters fully into the claims of University and King's Colleges to Government support as centres of scientific instruction for the metropolis. We can only wish the sister institutions all success in pressing their claims for a public grant in aid of the pursuit of science, though we regret that the medical departments of both colleges are expressly forbidden to share in any such benefit. We plainly see that with eleven competing medical schools in London it would be quite impossible to single out two only of them for Government aid; but the fact remains, nevertheless, that the profession which has done more than any other to cultivate science is to be carefully excluded from any benefits which may be conferred upon science at large. Is this not an argument then in favour of the concentration of the purely scientific teaching of medical students, which has been urged from time to time, both by the Medical Teachers' Association and ourselves?

In reference to the medical departments of the two colleges one or two statements require a little explanation. The clinical fees which are handed over to University College Hospital, and average some £2000 annually, are simply so much taken out of the pockets of the present medical staff by the act of their predecessors, who were anxious to found the hospital. Whether a charity ought thus to be maintained *in perpetuo* is a grave professional question. It is true that the College authorities pay the two Holme clinical professors £100 per annum, but this sum is out of all proportion to the work done. King's College Hospital has, no doubt, like the sister charity, been for years the "white elephant" of King's College, but it is still a mystery to us, knowing that smaller medical schools in London are worked at a profit, how the secretary of King's College should state officially that "the medical department has always been worked at a heavy loss." The only explanation appears to us to be the large number of scholarships and prizes, upon which, indeed, the College counts as great attractions.

A FALSE ACCUSATION.

MR. EDMUND POPE, of the Brixton-road, has been the victim of a false accusation brought by a parish patient, who asserted that he had indecently assaulted her in his own surgery. After an adjourned examination at the Lambeth Police-court, the magistrate dismissed the charge, making some very strong remarks upon the utter worthlessness of the accuser. The complete falsity of the charge was most incontestably proved, and we hope that the girl will be prosecuted for perjury. Unfortunately we have no public prosecutor, and the cost of such a proceeding must be borne by Mr. Pope, unless the Home Office can be induced to take up the matter. Possibly, as Mr. Pope is surgeon to a division of police, he may induce the police authorities to interfere for the protection of their own officer.

The infamous charge has, as we have said, utterly broken down, but this is a poor compensation to our professional brother for all the annoyance and damage he has sustained by the mere bringing of such a charge against him. If we blame the wretched girl who trumped it up—no doubt with a view to extortion,—what shall we say of the Society for the Protection of Women, which took up the charge? Did they take any trouble to investigate the charge and test the credibility of the witness? The Society may be a good one, but has no right whatever to put the law in action on the mere *ipse dixit* of a girl of bad character whose statement had no corroboration whatever.

The dangers of false accusation to which the medical profession is exposed are, from force of circumstances, very great. Theoretically, it is unwise to make a private examination save in the presence of witnesses; but practically it is impossible to avoid it. Fortunately, in the great majority of cases, the honour of the patient equals that of the doctor, and no harm ensues; but if it once becomes known that a Society is ready to take up a random accusation against a medical man on no evidence whatever, we may expect a flood of false "accusers of the brethren," and shall have ere long to inaugurate a "Society for the Protection of Medical Men."

THE NAVAL AND MILITARY LUNATIC HOSPITALS.

THE Commissioners of Lunacy, in their last annual report, criticise the arrangements made for the accommodation of lunatics at Netley, and it appears that the War Office are somewhat slow to act on official suggestions from this quarter. Gas-burners still exist that ought to be out of the reach of patients, but are not; the bath arrangements are defective and insufficient; and tanks, hydrants, pipes, &c., are provided for the extinction of fire, but there is no engine to work them. Special attention is also directed to the defective ventilation of the corridors and to the "comfortless and objectionable" bedsteads and beds at present in use. It appears that a day-room is also required.

The naval lunatic hospital at Yarmouth contains at present 196 patients, 38 of these being officers and 158 seamen, of whom a large proportion are general paralytics. The condition of the hospital, as regards cleanliness and ventilation, is reported to be excellent, and the bedding is particularly clean. New baths and waterclosets are in the course of construction, a great many pictures have recently been hung in the wards, and the entire result of the in-

spection must have been very satisfactory to Dr. McLeod and Dr. Whicher, "by whose skill and assiduity the hospital and its inmates are maintained in very excellent condition."

THE SATURDAY HALF-HOLIDAY.

THE Saturday half-holiday is by no means of unmixed benefit, if one may judge by the frequency with which one now sees working men in a semi-drunken condition early in the afternoon, either reeling along the streets or—with more modern refinement—being driven home in Hansom-cabs. The experience of surgeons in the manufacturing districts confirms this opinion only too fully, as may be seen from the following extracts from reports furnished to the Association of Certifying Surgeons:—

"The general result, so far as my observation goes," says a Scotch surgeon, "has been a very marked increase in the crime of drunkenness, which I attribute in great measure to the shortened hours of labour and increased remuneration of the working classes. The Saturday half-holiday and the regular holidays are disgraced to a very large extent by intoxication, whether the parties spend them in the town in which they reside, or, as is frequently the case, take an excursion elsewhere. I am of opinion that the working classes as a whole have not been benefited either by the shorter hours or the increased rate of wages."

Again, a Lancashire surgeon writes:—

"In the case of iron-founders, mechanics, &c., the Workshop Act has not been successful. The men do less work, have more idle days, spend more money in drink than before the change. Their wives and families are much worse off. For women, young persons, and children, a reduction of hours would be of more service, as they could profitably employ their leisure hours in domestic work, are in more need of additional leisure than men, and are not exposed to so many temptations to misspend it."

THE STORAGE OF WATER.

WE are glad to call attention to a very practical letter on this subject by Mr. Bailey Denton that appeared in *The Times* of Monday last. He recommends therein the appointment of a Royal Commission to inquire into the extent and character of the districts now suffering from a scarcity of water, the capability of storing and supplying water to districts ill-provided with it, and various other methods of storing water in the upper valleys of river systems or elsewhere in one district for the supply of neighbouring towns and villages. As we indicated last week, the subject, in its relations to public health, is of vast importance, and ought to claim the attention of all sanitary authorities.

PORT SANITARY ARRANGEMENTS IN TURKEY.

AN official report of the commerce of Turkey, lately published, includes a sketch and detailed description of the new lazaret recently erected at Salonica. This establishment is situated in an isolated spot about two hours' journey from the town, and contains sufficient accommodation for 400 inmates, as well as apartments for the sanitary staff, two small hospitals, cattle-sheds, storehouses, and an abundant supply of water. The entire outlay is estimated at £5500, and it would appear by the diagram that the relative position of houses, offices, &c., is very good.

REGISTRATION OF BIRTHS AND DEATHS.

MR. JAMES LEWIS, of the Registrar-General's Department, has been promoted to an Inspectorship for the purposes of the Acts relating to the Registration of Births, Deaths, and Marriages in England. Mr. Lewis has served for upwards of twenty years in the Medical Statistics branch at the General Register Office under the superintendence of Dr, William Farr; and he is probably known to many of our readers in connexion with his efforts to promote a national registration of sickness, which received special mention in the report of the Royal Sanitary Commission, as well as for an exceedingly compact and useful Digest of the English Census Returns of 1871. He is, moreover, a Fellow of the Statistical Society of London, and a member of the health committee of the Social Science Association.

THE Sanitary Commissioner of the Punjab reports that late returns show a considerable improvement in the health of the province. The total deaths have fallen from 5712 per week to 5190. The improvement is most marked in the Ambálah district, where the total deaths have fallen from 540 to 448. The improvement in this district is mainly due to the decline of the small-pox epidemic. The total deaths from small-pox in the district have fallen from 220 to 157. In the Kárnal district also there is a great abatement in the mortality from small-pox. In the province at large the total deaths from the disease have fallen from 575 to 423. Amongst municipal towns the disease continues very fatal in Palwal, Karnál, Sháhábád, and Sádhaurah. There were two deaths registered lately under the head of cholera, one in Chakwál in the Jhelam district, and the other at Derah Gházi Khán.

THE influence of certain manufactures in producing pulmonic diseases is well known. In a late report of the health of Sunderland it is shown by Dr. Yeld that the mortality from diseases of the lungs was highest in that district where nearly all the bottle and glass works are situated, the workers in such factories being peculiarly prone to inflammatory affections of the lungs and air-tubes.

DR. FRANKLAND reports that the water delivered by the Grand Junction Company, at Lancaster-gate, Hyde-park, on the first of last month, was slightly turbid, and contained living organisms, whereas the waters supplied on that day by the other London companies were found clear and transparent. The water supplied by the Kent Company contained the smallest quantity of organic matter.

IN London 1234 deaths were registered last week, including 16 from measles, 72 from scarlet fever, 10 from diphtheria, 17 from whooping-cough, 28 from different forms of fever, and 100 from diarrhœa. It is satisfactory to note the continued diminution of the mortality from diarrhœa. A death from sunstroke was recorded during the week.

TOURISTS bound for Palestine would do well to remember that there are many localities in the country which, although of surpassing interest, are at present undesirable as resting-places. At Jerusalem, in particular, contagious diseases are rife, a result due to the extremely defective system of drainage and sewerage which prevails in the holy city.

THE epidemic termed the "plague," which lately broke out at Merj, has lately appeared at Bersis, which is within ten hours of Benghazi. It is complained that the quarantine established on the coast is not sufficiently rigid and complete. An almost identical disease to this prevailing plague has also broken out at Doga, near Mecca.

SCARLET FEVER is now very prevalent in St. George-in-the-East, although the medical officer of health for the district has not yet reported any deaths from the disease. The parish for a long time has enjoyed a singular immunity from small-pox, two years having elapsed since a fatal case was registered.

OUR esteemed *confrère*, Sir J. Cordy Burrows, who is one of the directors of the Brighton Aquarium, deserves infinite credit for his courageous experiments as to the edibility of what many people regard as the most hideous monster which is found in the sea. On Saturday last Sir Cordy Burrows entertained at luncheon Mr. George Somes, Mr. Henry Lee, F.L.S., and Lieut.-Col. Chichester, when the *pièce de résistance* was boiled octopus. It was pronounced to be very palatable, resembling boiled lobster and skate. It is perhaps not well known that in many parts of the world cuttle-fish is a favourite article of food.

THERE died last week, at Colet-place, Commercial-road East, Mr. James Hawkins, M.R.C.S., one of the few surviving surgeons who served at Waterloo. Mr. Hawkins, who had reached the ripe age of eighty years, was present at the battle as assistant-surgeon on the staff head-quarters of the cavalry.

SCARLATINA still continues very prevalent in Dublin, and, indeed, may be looked upon as an epidemic. There were no less than thirty deaths registered as occurring in that city for the week terminating on 15th August.

SEVEN cases of scurvy were landed at Swansea on Monday last from a Greek vessel.

THE SANITARY ORGANISATION OF THE PORT OF LONDON.

THE cessation of cholera will now permit the sanitary authority for the Port of London to give undivided attention to the permanent sanitary organisation of the port. Since the port sanitary authority began its duties, the presence of cholera on the continent, and its occasional extension to these shores, have necessarily influenced its action so much that the provision for the current requirements of the port as to infectious disease has necessarily had to be held subsidiary to the special requirements in view of the danger from cholera. The problem of an organisation which will effectually meet the sanitary needs of the vast port is very complex, and will no doubt have to be worked out largely, step by step, from experience. The Medical Officer of the Port, Mr. Harry Leach, has, however, both in his recent report and his first report, indicated the questions which must first seriously occupy the attention of the authority. Foremost among these is that of hospital accommodation for the sick of infectious diseases. This question would appear to press for a quick solution. Already we learn that the *Rhin*, the hospital-ship moored off Gravesend, and which had been lent to the port sanitary authority by the Admiralty for cholera patients, has been converted into a small-pox hospital. It would seem, moreover, that one of the school-ships on the Thames has made application to the port authority for leave to send cases of infectious disease on board this ship. Whether this permission be granted or not, there does not appear to be any certainty, in the present state of hospital provision at Gravesend, that scarlet fever, or measles, as well as small-pox, might not be treated on board the *Rhin*. The very fact of small-pox being admitted on board this ship precludes its use for an indefinite period for other infectious diseases, and proves the stress to which the port sanitary authority is now subjected for fitting hospital accommodation at the mouth of the port. Moreover, the *Rhin* has been emphatically condemned as a hospital-ship, except for occasional or special purposes, by Mr. Harry Leach. It is, he tells us, an old ship with low gun-port hospital-deck, crowded with bulkheads. The woodwork is "spongy, and thus liable to take up miasmatic and other germs of disease, as numberless holes and corners exist favourable to their reception and retention." And yet on this ship, disease of which the contagion is specially persistent (small-pox) is now being or has recently been treated! We take it that the rules of separation of different classes of contagious diseases from each other, which have been recognised and acted upon in the different infectious disease hospitals in the metropolis, will hardly be set aside by the port sanitary authority on the Thames. But the kind of hospital arrangements which exist at Gravesend, and which have rendered necessary the admission of small-pox in the *Rhin*, should not be permitted to exist one moment longer than is absolutely necessary.

Mr. Harry Leach is in favour of retaining the *Rhin* for emergencies, and of constructing two small floating hospitals for cholera, one to be moored at Gravesend, the other at some point between Woolwich and London Bridge. He appears also to indicate, from a reference to the ambulances of the different riparian authorities, that he is in favour of having recourse to such hospital provision as they may possess for ordinary contagious diseases, such as small-pox, scarlet fever, &c. If this arrangement could be carried out, it would certainly simplify the requirements of the port, and would tend to a most desirable unity of object in the sanitary provisions of the port and those of the riparian authorities. Whether such an arrangement would meet the needs of the mouth of the port at Gravesend we are unable to judge, but elsewhere on the river it should certainly be sought after.

Correspondence.

"Audi alteram partem."

THE DISPERSION OF (NON-MALIGNANT) TUMOURS BY PUNCTURE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of the 22nd August I observe an article on the Dispersion of Tumours by Puncture, by Deputy-Inspector General Cameron, H.P. In this article there is a reference to a bygone discussion between Dr. Cameron and myself in THE LANCET, on the surgical treatment of hepatic abscess, which calls for a word of contradiction and explanation from me. I do so unwillingly, for I do not intend to enter into any controversy with Dr. Cameron, more particularly at this season, when, like many other hard-worked men, I am seeking health away from home, and doing what I can to turn my thoughts for a time out of their ordinary channel. The following is the passage to which I refer:—

"Having, some years ago, been so well abused in the pages of this journal by the Netley Professor of Medicine, for strenuously advocating the early puncture of the liver in every case of suspected abscess, it is with peculiar pleasure that I have read in the *Medical Gazette* of 25th April last, p. 457, the brilliant success of the operation at the Madras General Hospital, in a case where two distinct abscesses—one containing four and the other forty ounces of pus—were opened in succession in the same patient, instead of leaving him to die of hectic, while waiting for 'pointing' to take place, as insisted upon by my severe critic."

On this I beg to observe that I never "abused" Dr. Cameron or anyone else who happened to differ with me on a point of medical practice. If in the little controversy thus raked up there was any "abuse," it certainly did not emanate from me. I expressed myself strongly against the practice, which I understood was advocated by Dr. Cameron, of "exploring" the liver in search of pus with the coarse instruments then in use; I thought the proceeding unsurgical, and, from a pretty extensive experience, I knew it to be, as a rule, unsuccessful. For I had seen it done, and assisted in doing it, in the early days of my career in Southern India, when the practice was in fashion on the recommendation of a very able man and exceptionally expert surgeon, the late Inspector-General Dr. John Murray, at that time principal medical officer of H.M. troops in Madras.

When the ingenuity of Wyman and Bowditch in America placed at our command the syringe known by the name of the latter, I was the first to use it in cases of suppurative inflammation of the liver, and when the still better instrument of Dieulafoy came into use, it was, in like manner, first used in hepatic abscess by me, at Netley, and with it I have emptied abscesses not of "four and forty" ounces only, but containing double that quantity of pus. I know I am within bounds when I say that, in the course of last summer, the amount of purulent matter taken by aspiration from liver abscesses in my division at Netley, by myself and the staff-surgeons acting under me, might be reckoned by hundreds of ounces. These instruments have been urged on the attention of young medical officers going through the course of instruction at Netley for years past, and a considerable number of the operations reported from India of late years have been done by Netley men.

In conclusion, let me add, that the "brilliant success" of which Dr. Cameron writes is by no means the invariable, or even the very common, result of this operation either at Netley or in India. The Netley cases are chronic, and for the most part are sequels of dysentery; but even in the more acute and uncomplicated cases met with in India "brilliant success" is far from being the rule, as Dr. Cameron may learn if he will consult what Dr. M'Connell has written as the result of his experience in one of the Calcutta hospitals, although the modern operation is at least fifty per cent. more successful than the one advocated by Dr. Cameron and condemned by

Your obedient servant,

August 30th, 1874. W. C. MACLEAN, M.D.

To the Editor of THE LANCET.

SIR,—In reply to Dr. Marion Sims' inquiry, I beg to say that I first used a small common trocar, pushed as far as it would go into the thick upper and outer portion of the liver. Then I resorted to a long somewhat curved rectum trocar, and pushed it in till the feeling of non-resistance at its point denoted arrival at the abscess, which did not occur till, I should say, the instrument had penetrated three-fourths of its length.

I am, Sir, your obedient servant,

J. C. CAMERON,

Clifton Club, Sept. 1st, 1874. Deputy Inspector-General.

"TESTIMONIALS."

To the Editor of THE LANCET.

SIR,—In THE LANCET of August 22nd you directed attention to the number of the testimonials of the candidates for the chair of Physiology. Now, it occurs to me that you are not aware that when Professor Goodsir stood for the chair of Anatomy in Edinburgh, he presented 123 testimonials, and Professor Bennett presented no fewer than 160 for the chair of the Institutes of Medicine now vacant.

I am, Sir, yours very truly,

Aug. 31st, 1874. A LOOKER-ON.

*** We can only say that Professors Goodsir and Bennett furnished a precedent which is more honoured in the breach than in the observance. In the present day the practice of circulating testimonials on such a scale is justly regarded as undignified, if not actually reprehensible.—ED. L.

CORSICA.

(*From a Correspondent.*)

FOR those who are, unhappily, compelled to fly southward to avoid the rigours of the English winter, it is no small matter to have some choice of situation; and the invalid who, during the long months of yearly retirement, exhausts the resources of the various health-resorts one after another, will turn with avidity towards the prospect of finding some new spot, where, with equal climatic advantages, he may find some change of scene.

Of recent years, there has been no little talk of Corsica as a health-resort, and although up to the present time the number of English who have availed themselves of the advantages offered by this island has been small, when compared with the multitudes who throng the Riviera, still the number itself has not been inconsiderable, and there can be little doubt that with succeeding years it will materially increase. At present there is only one spot in Corsica which is ready to receive invalids or to which it would be advisable to send them, and that one spot is Ajaccio. Ajaccio is situated exactly on the same parallel of latitude as Rome. The town is placed in a most picturesque situation at the extremity of a gulf, open towards the south-west, about ten miles in length. It is protected by hills of considerable height from all winds except those which blow up the gulf; and in the matter of protection from the north and east it is, if anything, more effectually sheltered than either Cannes or Nice, and would hardly yield in this respect to Mentone. It is unfortunately impossible to give any exact details as to the meteorology, because no systematic observations have as yet been made. The rainfall is slight, and its yearly amount is probably less than the twenty-three inches which is stated in the guide-books to be the average rainfall for the island of Corsica. We have been favoured with the sight of a private record of the weather which has been kept during eight months of the year, for the past four years, by an English lady who has been resident in Ajaccio for seven or eight years, and to whom the town is greatly indebted for much of the public attention which has been drawn upon it. This lady is Miss Campbell, of Moniacke Castle, Scotland, whose little work, entitled "Southward, Ho" should be read by all who are intending to come to Corsica. Miss Campbell's weather diary, although it does not give any thermometric or barometric records, shows that the weather is generally "beautiful," and that the *foul* bears a very small proportion to the fair weather. Thermometric observations taken daily for a month last winter show that the lowest temperature in the shade was 44°.

Three or four small rivers flow into the Gulf of Ajaccio, and near their mouths are many acres of marsh land, which during the winter harbour great quantities of snipe, but which during the summer render the whole district almost uninhabitable, and fill the Ajaccio Hospital with cases of intermittent fever. The malarious poison hardly exists excepting between the months of April and October, and those few persons who are attacked by the fever during the rest of the year, have generally to thank their own stupidity or obstinacy for the mishap. There is a great deal of malaria everywhere in Corsica, but especially along the East Coast, where a broad belt of plain intervenes between the sea and the mountains. The marshes are formed by the silting up of the mouths of the rivers, owing to the almost entire absence of tide in the Mediterranean. The soil of Ajaccio is formed mainly of a granitic detritus, which drains quickly, and although, when it rains, the showers are most profuse, their effect is visible only for a few hours. The air is softer and probably more humid than that of Nice or Cannes; and whereas, in the former places, it is found that persons of a nervous temperament often suffer immensely from the exciting qualities of the dry air, no such effects have been observed in the same class of patients who have visited Ajaccio. People, who are not invalids, often complain of great sleeplessness and restlessness while sojourning along the Riviera, but the same effect has not been noticed in Corsica, a fact which is probably due to its being an island.

Major Murray, an Englishman who has recently purchased an estate at Porto Yolo, on the southern shore of the Gulf of Ajaccio, and within about eight miles of the town itself, has commenced taking regular systematic meteorological observations, so that in a few years we may hope for some exact and sufficient data from which to draw conclusions.

The soil is most productive, and, if properly cultivated, it is probable that an enormous quantity of fruit, vegetables, and cereals might be grown upon it. The one tree which may be said to be characteristic of the island is the Spanish chesnut, and the yield from these trees in some parts of the island is so enormous as to almost relieve the Corsican peasant from the necessity of working. The Corsicans are almost all small landholders, with no small amount of pride (in a something which is not always discernible to others); they have a fondness for the *dolce far niente*, and if they can find leisure to carry a gun through the underwood in

search of game, and if they find a sufficient quantity of chesnut flour to appease their appetites, they cannot always be brought to recognise the dignity of labour. Next to the chesnut, the olive is, perhaps, the most important product of the Corsican soil, and from some districts of the island the yearly export of oil is very considerable. Oranges, lemons, and citrons are grown in great numbers, and it is from Corsica that no inconsiderable quantity of what is known as "candied peel" finds its way to the English market. Vines are found everywhere, and the red wine of the country is a pleasant, wholesome beverage, having a character something between claret and port, and possessing a flavour which is peculiarly its own, and which, to an English palate, is slightly suggestive of the black currant. Almonds and figs are also common, and it is sad to have to state that the proud Corsican peasant is already beginning to learn the art of supplementing the grapes in the wine-press with an admixture of the latter fruit. Major Murray has great faith in the productive qualities of the soil, and upon his estate, in addition to the ordinary Corsican trees and shrubs, he has planted melons, pine-apples, tea, coffee, and pepper. The granite hills are clothed with a thick covering of underwood, which is known as maquis, and which is composed of arbutus, myrtle, rosemary, cystus, and other shrubs, inclusive of the prickly pear, which grows all over Corsica like a weed. Upon the mountain tops are primeval forests, composed almost entirely of pine-trees, which attain the enormous height of 120 feet and upwards, with a proportionate girth. The wood of these trees is so valuable that he who wishes to see the Corsican forests before they have all passed through the ordeal of the saw-mill had better lose no time in doing so.

Ajaccio is a town of about 20,000 inhabitants, and those parts in which the hotels and pensions are situated are tolerably well built. The Place Napoléon and the Place du Diamant are open and airy, if not remarkably beautiful. The Cours Napoléon is a fine wide street, more than half a mile in length, and the Cours Grand-Val bids fair to become a most attractive boulevard. Ajaccio, as a resort for foreigners, is as yet in its infancy, so that visitors must not expect to find the same amount of luxury or facilities for artificial enjoyment as they will find at Nice, Cannes, Mentone, or the other better-known health resorts. There are, however, corresponding advantages, and one of the greatest is the cheapness of living, when compared with other towns. We have heard of a lady and her daughter who are occupying three rooms in a pension, for which they are paying £2 a month, with an additional 20 francs per month for attendance, and 6 francs a day (for the two) for food. This gives the total expense of living—exclusive of course of those incidental expenses which vary with individuals—at £10 per month for two people. Living in the hotels is more expensive, but still cheap, and a gentleman residing at one of the best hotels told us that it cost him 7 francs a day, or less than £2 a week. The visitor to Ajaccio will not be overwhelmed with luxuries, and although his bed will be clean and comfortable, his food wholesome and sufficient, and the wine good, he will find that the decorations and furniture of his sitting-room will consist of bare walls and floor, a table without a cloth, and four or five rush-bottomed chairs. The fuel is entirely wood.

There are two hotels of considerable size, both of which are well filled. There are besides several pensions, and any family who could afford it would have no difficulty in hiring a villa—and there are some very nice ones—for a moderate rent.

The diet is, on the whole, good. Some of the dishes which one meets with are exceedingly nice, and the Corsican is not so ruthless in the employment of garlic as are his neighbours on the Italian Continent.

Most of the cooking is essentially French, but the epicure will here meet with two delicacies which can scarcely be procured elsewhere. The one is "brocchio," a kind of cream cheese, made from goats' milk, and resembling the clotted cream of the West of England. This, when eaten with sugar and orange-flower water, is exceedingly good, and must also be of considerable nutritive value. The other delicacy is the Corsican blackbird, which for flavour can hardly be exceeded, and would, we think, more than hold its own by the side of the various birds which, according to season, form the "second course" of our London dinners. The blackbirds feed largely on the arbutus berries, and migrate hither from the Continent for the purpose of doing so. To this is due their flavour, and the Corsican cooks retain it and improve it by dressing them like woodcocks with the "trail." The bread, although not equal to good London bread, is not bad, and very seldom is sour, as is the case almost invariably in Italy.

The town is fairly drained, being built upon the slope of a slight hill, and, excepting during the hot summer months, is free from any very bad smells. The water is good, and is at present obtained either from private wells or public fountains, of which there are some few in the town. A very beautiful aqueduct has lately been completed at a great expense by the Municipal Council (who seem a most spirited body), by which water is to be brought about thirty miles, from a source at some elevation in the adjoining hills. This aqueduct is finished, and is almost ready to be opened, and it is said that in a year or so water will be carried to the top of every house in Ajaccio. The large heaps of iron piping on the quay seem to speak to the truth of this report. The quay and breakwaters have been constructed on a grand scale, for the traffic to and from Ajaccio is beginning to be considerable, and if the authorities would prevent the inhabitants from defiling the steps of the landing-places, and depositing thereupon every kind of abomination, there would be nothing to desire. At present, however, while landing from boats, it is often necessary to hold one's nose, and run quickly, but carefully, up the stairs.

What are the amusements of Ajaccio? This will be the question asked by those who see before them four or five months of exile. The lover of nature will find here (and where will he not find?) ample amusement. The traveller from England will meet with many forms of life, both vegetable and animal, both on land and in the sea, with which he cannot be familiar, and the study of which would offer employment not only for one but for very many winters. For those who find pleasure in the picturesque, or who excel in sketching, a visit to Ajaccio will prove a rich treat, for, without doubt, the island of Corsica has natural beauties of a most extraordinary kind. Soft woodland, bold towering rocks, snow-clad hills presenting endless forms of fantastic outline, rushing torrents, and every variety of foliage will all be found; and these, when combined with the deep blue of both sea and sky, form a repast for an artist which is practically inexhaustible. Those who have not the good fortune to see these beauties with their own eyes may derive some consolation from perusing the "Journal of a Landscape Painter in Corsica," by Edward Lear, which was published a year or two since, and the excellent woodcuts in which will serve to give some idea—but all ideas in mere black and white can be but the faintest reflection of the reality—of a land which recalls the fairy-land of our childish dreams. The one drawback to Corsica at present is the scarcity of the means of transit from one part of the island to another. Excepting in Ajaccio decent carriages and reliable horses and drivers are hardly to be obtained, and the public *diligences* are scarcely the vehicles which one would select by choice. The roads are well made, but very hilly, and run, often at great altitudes, in most dangerous situations, so that it is never advisable to entrust oneself to the mercies of a chance coachman and the shortcomings of an ill-constructed carriage. At present there is no railway in Corsica, nor, indeed, does there seem to be much immediate prospect of there being one, although prior to the Franco-Prussian war there was no little talk of a railway along the east coast. To the sportsman Corsica is a country full of interest, although its qualities in this respect have of late years much deteriorated. A few years since Corsicans were not allowed, in consequence of the wholesale destruction of life caused by the Vendetta, to carry firearms, and, as a natural result, game of all kinds increased in numbers enormously. Now, however, game is far from being so plentiful, since almost every peasant carries a gun slung across his shoulder. Snipe are found in some quantities in the marshes, and woodcocks among the maquis on the hills. Partridges and hares are rare. For those who aim at the killing of big game there are wild boars in the thicket and mufflons on the mountains, but it is right to add that a muffion, alive or dead, is a decided curiosity, and that wild boars are very few and far between. In the Gulf of Ajaccio there are fish to be caught, and the conchologist may amuse himself by dredging for shells, and with the certainty of finding many rare and beautiful varieties.

The resources of the town itself are not numerous. There is a good public promenade by the sea, and an open square which is much frequented by the inhabitants, and in which a military band plays on Sundays and *fête* days. The hero-worshipper will be interested in Napoleon's house, and will examine with curiosity Madame Lætitia's bed, "from which," in the words of the cicerone, "have come four kings and an emperor." In the college Fesch will be found a picture gallery containing about 800 pictures. There is also a good opera house in Ajaccio.

Corsica contains several mineral springs, the most famous one being the chalybeate effervescing spring at Orezza, on the east coast, the water from which can be procured in Ajaccio for three sous the bottle. There is a hot sulphurous spring at Guitera, about forty miles from Ajaccio, which, we are informed, is much frequented during the summer.

There is at present no English church at Ajaccio, although service is regularly performed in a room at the hotel, which has been specially fitted up for that purpose. Miss Campbell, I believe, contemplates building a church, and has already acquired the necessary site.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE attempted triple murder and suicide in our town on Friday last has caused a very painful impression in Newcastle and the neighbourhood. The unfortunate woman, Rebecca Lewis, is most undoubtedly insane, and it is a question if ever there was a clearer case of homicidal mania. It appears that upon the morning of the occurrence her husband, Levene Lewis—who had previously noticed that her mind was affected, and had taken some steps towards having her properly taken care of,—was looking out of his window, when he was attacked from behind by his wife, who, before he had time to defend himself, inflicted some severe although not dangerous wounds upon his neck with a table knife, severing the lobe of one of his ears. Lewis then took the knife from her, and put her out into the common stair passage. He then went to the infirmary to get his wounds dressed. Meantime, his wife entered a neighbour's (Mrs. Raven's) house, and attacked her two children with a table knife; the eldest, a little girl two years and a half old, who was playing on the floor, and the youngest, Charles, three months old, who has since died from his injuries. The wretched woman then commenced to cut her own throat with the same knife, and there is no saying how far she might not have gone in her desperation, had not a youth, named Langley, attacked her with a coal rake, and succeeded in knocking the knife out of her hand and throwing her down. Dr. Newton, who was visiting in the neighbourhood, attended to the sufferers. The youngest child was dreadfully wounded in the mouth and pharnyx, the knife having been thrust into the mouth with much force, and it died the next day. The second child had a long incised wound of the neck, but no vessel of importance was injured, and she is expected to recover. The husband, Lewis, is considered out of danger, but of his wife so much cannot be said. She has been very excited, and has several times attempted to remove her bandages, so that much restraint is necessary in her case.

An inquest was held last night at which Dr. Newton and Mr. Dodd, surgeon, gave evidence touching the death of the infant, Charles Raven, and the jury returned a verdict of "Wilful Murder" against the woman Lewis. During the inquiry her husband wished to censure two gentlemen whom he blamed for her non-removal before the tragedy, but this was not allowed to be gone into. If, however, any precaution could have prevented this dreadful occurrence, it is certainly unfortunate it was not taken. The laws of lunacy, while taking great care of the insane, seem to imply that the sane can take care of themselves, which is far from being always the case, as the poor little helpless victims in this case could testify.

Dr. Heath has lately used the galvanic écraseur at the infirmary to remove a large mass of malignant disease, a secondary growth from the stump of the spermatic cord. The testicle had been removed some time previously, and this large growth had appeared a few months ago, and latterly had grown rapidly. The integuments were divided, reflected back, and the pedicle of the growth exposed at the abdominal ring. The pedicle, consisting of the remains of the cord, and thick fascia and adhesions blended together, formed a dense mass attached to the pubic bones, and having a circumference of about five inches. The diseased growth was very vascular. The pedicle was cut through by the heated wire in less than half an hour.

Dr. Byrom Bramwell, of North Shields, is a candidate for the post at the infirmary left vacant by the death of the late Dr. Charlton. Dr. Bramwell is well known to us all here, and I am sure that the profession in the town would hail his appointment as physician to the infirmary with pleasure. Dr. Page is vacating the house-surgeoncy, and I understand is about to commence private practice. He will enter upon his new sphere with the best wishes of many.

Dr. Alleyne Nicholson was on Friday unanimously appointed to the Chair of Biology and Physiology, about to be established in the Colleges of Medicine and Physical Science here. Dr. Nicholson is already known as the author of numerous valuable text books on zoology and palæontology, and has had much experience in teaching, both in Edinburgh and Toronto.

Newcastle-on-Tyne, Sept. 1st, 1874.

Obituary.

CHARLES CHRISTOPHER HAYMAN, M.D.

IT is with regret that we have to announce the early death of this esteemed and well-known physician, who died on August 2nd at West Malling, Kent, after a painful and lingering illness. He was the youngest son of Mr. Charles D. Hayman, formerly a surgeon in extensive practice at Axminster, and was born in 1826. In 1846 he commenced his professional education at the Middlesex Hospital. In 1849 he became a licentiate of the Apothecaries' Company, and in 1850 a member of the Royal College of Surgeons of England, and forthwith commenced practice at West Malling. In 1853 he took his Doctor's degree at King's College, Aberdeen, and in 1860 he became a licentiate of the Royal College of Physicians of Edinburgh. In 1854 Dr. Hayman was attacked with congestion of the apex of the left lung and hæmoptysis, and from that time his health gradually declined until 1860, when he was advised to remove to Eastbourne, in the hope that the bracing air of that beautiful watering-place would restore him to somewhat of his former vigour. These expectations were realised; his strength slowly returned, and for nearly fourteen years he was able to attend to the pressing claims of a rapidly increasing practice.

About four years ago symptoms of Bright's disease manifested themselves, but he still worked on until last autumn, when he was compelled to give up the chief part of his duties to his son, Dr. Charles Norton Hayman. He came to London last June to consult Sir William Jenner and Dr. Radcliffe, and hopes were entertained that his valuable life might be prolonged, but God had ordained otherwise. He went to West Malling, and in three weeks he was released from his sufferings.

Eastbourne has sustained a great loss by the death of Dr. Hayman, who was not only highly valued in his professional capacity, but also for his zeal and activity in promoting the general interests of the town. During the epidemic of scarlet fever which raged in Eastbourne in 1863, Dr. Hayman exerted himself far beyond his strength, and it was chiefly by his instrumentality that the sanitary improvements, especially with regard to drainage, were carried out, which have since made Eastbourne so celebrated as a health resort. He was one of the early promoters, if not the originator, of the Eastbourne College, which is increasing in prosperity every year; he was chairman of the workmen's hall, president of the cricket club, and an active member of the board of guardians. In fact he spent himself for the good of the town where he had taken up his abode for the restoration of his health. Dr. Hayman was an acute and able practitioner, and very quick at diagnosis; and it was by his skill, conscientiousness, and kindness that he secured the confidence of all who came under his care, and his numerous friends and patients will long mourn over the great loss they have sustained. He was buried at Eastbourne Cemetery on August 7th.

Medical News.

THE library of the Obstetrical Society will be closed from the 7th to the 19th of September, both days inclusive.

VACCINATION GRANT.—The Local Government Board has awarded Mr. Julian Willis, of the New Winchester and Andover Unions, the sum of £6 11s. for efficient vaccination in his districts.

IN Dublin, this week, a woman named Dunne, a sausage maker, was fined £3 and £1 costs for having in her possession one hundredweight of beef which was in a state of decomposition and totally unfit for food; and which she was about to convert into sausages.

THE VENTNOR HOSPITAL FOR CONSUMPTION.—The trustees of Cholmondeley Charities have made a second grant of £25, in aid of this hospital. Of the separate houses, or hospitals, which this institution is intended to comprise, all have been built, or are in course of erection, but two, for which there is very urgent need. The committee, in a recent report, state that the applications are much in excess of the present accommodation. Funds are needed to furnish some of the houses, and to clear off a large building debt on the chapel.

NEW FLOATING BATHS ON THE THAMES.—The new floating bath on the Thames, which, by the sanction of the Thames Conservancy and the Metropolitan Board of Works, will be moored in the place now occupied by one of the landing stages at Hungerford-bridge, is on the point of completion. The bath, which is built of corrugated iron and glass, with a lofty dome at each end, presents a very handsome exterior. The entire length is 180 feet by 31 feet. The bath itself affords a swimming area of 135 feet by 25 feet, is paved with encaustic tiles, filled at each end with huge filters capable of purifying Thames water at the rate of 1000 gallons per minute, and flanked on both sides by dressing rooms, hot baths, &c. The filters, which are entirely new in principle, have been tested by Admiral Elliot from the well of a barge, when it was found that Thames water passing through them was rendered perfectly drinkable. At certain hours the bath will be set apart for ladies, a staff of male and female professional swimmers being always at hand to give lessons; while, to those unable to pay, members of the London Swimming Club will be there each evening to give lessons gratuitously.

Medical Appointments.

BARKER, S., M.D., L.R.C.P.Ed., has been appointed Honorary Physician in Ordinary to the Brighton and Hove Dispensary, vice King, resigned.

BARKER, W. R. H., F.R.C.S.E., has been reappointed Medical Officer of Health for the Wantage Sub-district of the Wantage Rural Sanitary District: £25 per annum; acreage 33,745; population 9850.

BARR, J., M.B., L.R.C.S.Ed., has been appointed Junior House-Surgeon to the Northern Hospital, Liverpool, vice Harris, promoted.

BIRTWHISTLE, W., M.R.C.S.E., has been appointed Medical Officer for the Skipton District and the Workhouse of the Skipton Union, Yorkshire, vice Granger, resigned.

BRUMWELL, J. C., M.D., M.R.C.S.E., has been appointed Medical Officer to the County Constabulary, Burnley, Lancashire, vice Smirthwaite, deceased.

DAVIES, J., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Ebbw-vale Urban Sanitary District: acreage 2000; population 10,000.

DERHAM, B., M.D., has been appointed Medical Officer (*pro tem.*) for the Garstang Rural Sanitary District: 21s. per case, and 6d. per mile each way; acreage 61,115; population 12,186.

FOX, C., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Topsham District of St. Thomas Union, Exeter.

GIVEN, M., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Blesinton and Ballymore-Eustace Dispensary District of the Naas Union, Co. Kildare, vice Robinson, resigned.

GRIFFITH, R. G., M.R.C.S.E., has been appointed Medical Officer to the East Indian Railway at Benares.

HARRIS, J. A., M.B., M.R.C.S.E., Junior House-Surgeon to the Northern Hospital, Liverpool, has been appointed Senior House-Surgeon, vice Hamilton, resigned.

HARRIS, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Resident Medical Superintendent of the Norwich Lunatic Asylum, vice Sutton.

HATHERLY, H. R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Radford Urban Sanitary District: £50 per annum for three years; acreage 640; population 15,125.

HODGSON, W., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Aspatria District of the Wigton Union, Cumberland, vice Miller, resigned.

JAMIESON, A. A., M.D., C.M., has been appointed a Medical Officer for the St. Helen's Division of the Lancashire Constabulary.

MAC CARTHY, E., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the Dursley Union, Gloucestershire, vice Doyle, resigned.

MACPHERSON, C., M.B., L.R.C.S. Ed., has been appointed Medical Officer for the Parish of Stromness, Orkney, vice Traill, deceased.

MUDGE, T., M.R.C.S.E., has been appointed Medical Officer of Health for the Bodmin Urban Sanitary District: £20 for one year.

PHILLIPS, E. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Prittlewell District of the Rochford Union, Essex, vice Wardell, resigned.

POWELL, J., M.R.C.S.E., has been appointed a Junior House-Surgeon to the Royal Free Hospital, Gray's-inn-road, vice Tooze, resigned.

PRIESTLEY, C. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Resident Medical Officer to the West Norfolk and Lynn Hospital, vice Plowright, resigned.

REID, A. W., M.B., C.M., L.R.C.S.Ed., has been appointed Physician-Superintendent of the City of Glasgow Fever Hospital, vice Lilley, appointed to the Western Infirmary, Glasgow.

RICE, G., M.B., C.M., has been appointed House-Physician to the Royal Infirmary, Manchester, vice Addy, whose appointment has expired.

RITCHIE, A., M.D., has been appointed Certifying Factory Surgeon for the District of Pollokshaws, vice Steel, deceased.

ROBERTSON, J. A., M.B., C.M., has been appointed Parochial Medical Officer and Public Vaccinator for Wemyss, Fifeshire, vice Bonthron, deceased.

ROBERTSON, J. D., M.D., has been reappointed Medical Officer of Health for the Penrith Rural Sanitary District.

ROBISON, D., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Allonby District of the Wigton Union, Cumberland, vice Miller, resigned.

STEPHENS, T., M.R.C.S.E., has been appointed Medical Officer of Health for the Tynemouth Urban Sanitary District: £100 per annum; acreage 5130; population 38,960.

THOMPSON, T. W., M.R.C.S.E., has been appointed a Junior House-Surgeon to the Royal Free Hospital, Gray's-inn-road, vice Parry, resigned.

TWYFORD, E. P., M.D., L.R.C.S.Ed., has been appointed a Medical Officer for the St. Helen's Division of the Lancashire Constabulary.

WALKER, W., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Parish of Eastwood, Renfrewshire, vice Steel, deceased.

WOOD, W. J., M.R.C.S.E., has been reappointed Medical Officer of Health for the Brightwaltham Sub-district of the Wantage Rural Sanitary District: £25 per annum; acreage 41,447; population 7517.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On the 27th ult., at Claremount-road, Sandymount, the wife of H. M. Clarke, L.R.C.P.Ed., of Philipstown, King's County, of a son.

CRAWFORD.—On the 15th of July, at Kussowlie, Punjab, the wife of T. Crawford, M.D., Deputy Surgeon-General Army, of a son.

IRVINE.—On the 26th ult., at Mansfield-street, Cavendish-square, W., the wife of J. Pearson Irvine, M.D., of a daughter.

LONG.—On the 25th ult., at Wells-next-the-Sea, the wife of Frederick Long, L.R.C.P.L., of a daughter.

MADGE.—On the 20th ult., at Upper Wimpole-street, the wife of H. M. Madge, M.D., of a son.

PALMER.—On the 24th ult., at King's-road, Chelsea, the wife of J. Foster Palmer, L.R.C.P.L., of a daughter.

MARRIAGES.

AKERMAN—WARLAND.—On the 29th ult., at St. Mary's Church, Paddington, William Akerman, L.K.Q.C.P.I., M.R.C.S.E., of Golborne-road, Upper Westbourne-park, to Annie, only surviving daughter of the late Capt. Warland, of Poole, Dorset.

COOPER—HARBY.—On the 22nd ult., at Leytonstone, Frank W. Cooper, Surgeon, to Edith, eldest daughter of James B. Harby, Esq., of Leytonstone.

ROGERS—FLOWER.—On the 20th ult., at St. Mary's, Lambeth, Hildyard Rogers, M.R.C.S.E., to Edith, daughter of the late George Flower, Esq.

DEATHS.

BALLARD.—On the 1st inst., Thomas Ballard, M.D., of Southwick-place, aged 56.

DOWLING.—On the 19th ult., James Harnett Dowling, M.D., of Cerne Abbas, aged 60.

FRANKLIN.—On the 20th of July, at Barabanki, Oudh, John Edward Watson, only son of Dr. B. Franklin, Civil Surgeon, aged 6 months and 27 days.

WOOD.—Last week, suddenly, the youngest daughter of Dr. Andrew Wood.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Woodworth: Nomenclature of Diseases.
Mr. Muter: Pharmaceutical Chemistry.
Rev. C. B. Gibson: Philosophy, Science, and Revelation.
Mr. Hughes: The Geography of British History.
Dr. Kirby: A Formulary of Selected Remedies.
Mr. Ansell: Statistics of Families.
White's Grammar School Texts.
The Alpine Club Map of Switzerland.
Mr. Bennett: How to Restore the Walking Powers, &c.

Notes, Short Comments, and Answers to Correspondents.

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 12th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that Number, are earnestly requested to send it *without the delay of a single post.*

CARLIST ATROCITIES.

THE Madrid correspondent of the *Standard* communicates some interesting details in connexion with the recent murder, among others, of a young surgeon by the Carlists (who have been aptly termed the Ashantees of Europe), and to which we briefly alluded in our issue of last week. The victim's name was Don Braulio Ruiz, who immediately after obtaining his diploma in the University of Valencia was appointed surgeon to a Catalonian regiment. His pay he devoted to his widowed mother in Valencia, and it was the only means by which she supported herself and her two daughters. After having been kept a prisoner for some time, he was, in conjunction with his comrades, numbering over 100, ordered out of a church in which they had been placed, and told to prepare for death. Before the horrible *battue* commenced, young Ruiz found time to write the following letter to his mother, and which it is some consolation to think reached its destination:—

"Beloved mother and sisters!—To day (17th) they have *quintado* all the prisoners, and the lot has fallen to 13 officers, 100 soldiers, and to me! We are about to be shot! From the middle of the mountain, in the few moments of life which remain to me, I write you this, my last letter. I do not feel, mother dear, the loss of my life, but the leaving you whom I love dearer than life, and leaving you in complete misery, and in the hands of fate, which has behaved so ill to your darling son. Mother dear, and sisters dear, receive my last adieus. Give the same to all my friends, and pray to God for the soul of your

"BRAULIO."

It [is confidently expected in Valencia that the Government will provide for the family out of Carlist property lately confiscated.]

Mr. Napier is thanked.

EVENHANDED JUSTICE.

To the Editor of THE LANCET.

SIR,—May I ask you to lay before my professional brethren the treatment I have experienced from the Board of Guardians of the Witney Union, Oxfordshire.

I have been compelled to retire from practice from age (seventy-six) and infirmity (hæmaturia, supposed to be from renal calculi), and I have applied to the Board of Guardians for a "superannuation allowance," basing my application upon the following facts.

1st. I have been medical officer of the Witney Union for forty years, having been appointed in 1834.

2ndly. I am compelled to resign from age and infirmity.

Relying on the Acts of Parliament, 27 and 28 Vict., c. 43, and 33 and 34 Vict., c. 94, I considered my case one which the House of Commons must have had in contemplation when passing those Acts, and I am at a loss to know (not having any reason assigned) upon what principle my application has been refused, seeing that the Board of Guardians of an adjoining union (Abingdon) have, under precisely similar circumstances to mine, voted a retired medical officer an annuity of about two-thirds of his salary; seeing also that the guardians of the City of London Union have in a like manner rewarded one of their medical staff. I am aware that the Act of Parliament places the grant at the discretion of the Board of Guardians; but I apprehend that discretion was expected to be tempered with justice. If such a paramount claim as mine is to be disallowed, the Act of Parliament is a nullity, and should be amended.

I am, Sir, your obedient servant,

EDWARD FREDERICK WHITAKER.

Bampton, Faringdon, Berks, Aug. 31st, 1874.

*** The case of Mr. Whitaker is eminently one for the application of the recent Act. Unless the guardians mean to set the statute aside, and act contrary to it, we cannot believe they will refuse a superannuation allowance to a servant who has served them for forty years, and is now seventy-six years of age.—ED. L.

Mr. George Buckell's case is a very hard one. We shall refer to it again shortly. Meantime he should make a clear statement of the facts to the Local Government Board, coupled with a statement by the registrar. We can scarcely doubt that the appointment will be at once confirmed.

TREATMENT OF SYPHILITIC STOMATITIS.

To the Editor of THE LANCET.

SIR,—Will some of your readers be kind enough to suggest the proper treatment for the following case.

Mrs. P——, aged fifty, contracted syphilis from her husband four years ago, and has since then at frequent intervals suffered from "sore mouth." She came under my charge at the beginning of this year; and though I have given her ten-grain doses of the iodide of potassium ever since, and applied the linimentum æruginis, and free nitrate of mercury to the ulcerations, which are extensive, but superficial, over the fauces and mucous membrane of the cheeks, I cannot get them well, though her general health is much improved. We are too far from London to consult a surgeon who goes in for this specialty. I am, Sir, yours &c.,

September 1st, 1874. J. B. B.

TRAINING SHIPS.

THE Commissioners, in their final report on unseaworthy ships, endorse the view which we have repeatedly set forth as to the supreme importance of healthy and efficient crews in regard to the safety of ships at sea. They moreover, we are glad to see, recognise and give prominence to the great advantage of training ships as a means of ensuring a supply of such crews. It is surprising, indeed, with our vast maritime interests, and the consequent demand for sailors, on the one hand, and the need of providing useful employment for boys whom it is desired to rescue from a life of vagrancy and perhaps of crime, on the other, that it should have been left almost to the last decade to witness a really serious effort to meet these two wants by the institution of training ships. There ought, however, to be many more of them.

M.R.C.S., (Dublin.)—We cannot give our correspondent the information he desires.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—My letter in your issue of Aug. 15th appears to have touched a rather lively cord in Mr. Keily's memory; for after professing to have known nothing about me, he now simply appals one by the variety and extent of his recollections. Had he confined himself to *facts*, it would not have been necessary for me to have troubled you again on the above subject; but as he has not done so, but has given free play to his imagination, I must avail myself of your proffered opportunity, though, doubtless, the majority of your readers are quite able to estimate correctly the real bearings of the question in dispute. I will take Mr. Keily's remarks *seriatim*, and point out a few of the most prominent inaccuracies and inconsistencies.

I am fully impressed with the belief that the deceased lady possessed all the virtues ascribed to her; but if I am to admit (which I do not for a moment) what Mr. K. says as to the view she took of my efforts with reference to her personally, there must have been a strange want of honesty in her nature. Were I disposed to bolster up my statements by hearsay and lay evidence, I could most abundantly prove that Miss T. frequently expressed the satisfaction she derived from my professional attendance; and my assertion in one of my letters that I knew my services to be appreciated by my patient was founded on the fact that she had made me on several occasions presents, which, though possessing no very great intrinsic value, were perfectly gratuitous on her part, and certainly were not calculated to facilitate the choking-off process which Mr. K., it appears, was nearly being called upon to perform. He could not have had this possible duty in view, I imagine, when in this house on February 12th last, or perhaps the eulogistic terms in which he then thought proper to indulge were due to a desire to be agreeable. Active imaginations ought certainly to be associated with good memories. It was with reference to the above gifts that my wife called twice during our acquaintance on Miss T., and my children visited her three, or at most four, times by request.

The reason Mr. K. gives why my *intrusions*, as he designates them, were not forcibly prevented is touchingly simple, perhaps a little too much so for your matter-of-fact readers. It has been shown that the lady was perfectly familiar with the medical talent of the neighbourhood; and as she "paid the piper," she possessed most ample means for protecting "Mary and her child," not only from "neglect or unkindness," but also from improper treatment in connexion with bronchitic or other attacks. Or again, had our relations been such as he endeavours to pourtray, nothing would have been more easy than to have allowed my attendance to lapse; that the contrary was the case I can prove conclusively. I find from the books, which have been already offered for inspection, that in the twelve months alluded to—during which time Mr. K. now, I think, admits that I may have attended the servants (whatever aid the domestics may have required has always, I imagine, been rendered by the local attendant of the period)—I gather that I was summoned to Miss T. herself on June 27th, 1873; saw her on, as nearly as possible, alternate days till July 13th. Was again called to her on the 16th of the same month, and continued, as before, to the 26th. Was again asked to see her on August 8th, when I attended for about a week. I then saw no more of the place or its belongings till September 6th, when I was called to the lady's maid, a very highly valued and confidential domestic, who unfortunately, like, and in advance of, her mistress, in spite of all precautions, died within a very few weeks of the eventful 1st of June last. She, at the time I was speaking of, had a very severe attack of bronchitis, which necessitated my *intruding* up to October 31st. On November 22nd I was again in attendance; but this I think must be sufficient for my purpose and your space.

I will merely add that I am perfectly confident that no one ever ventured to send to my house except by the mistress's request, and to her I had more than once to complain that it would be inconvenient and objectionable to me to attend more frequently than I considered the nature of a case demanded. The under-gardener's wife, whose accouchement has become so celebrated in your columns, came to my surgery in the ordinary way, and made her arrangement, introduced by a person whom I have for years attended in this way, who also was in the habit of being employed at Miss T.'s house. Miss T.'s knowledge of the matter or interest in it I should have been in perfect ignorance of had she not subsequently alluded to it, and expressed her wish that it should be done on her (Miss T.'s) account. I have only discovered since this correspondence has being going on that for years I have attended a man (and his family) who for all that time has been head gardener to this lady; but how far she was influenced by head or assistant gardeners or their wives in the selection of her doctor I must leave to others to demonstrate. I have already indicated the time of this confinement (September 13th, 1873). I saw the mother three times after, and find that I have visited the infant on three subsequent occasions, and that it has been brought to my surgery an equal number of times for vaccination, &c. It goes considerably against my grain to have to affirm, as I do most emphatically, that I never took it in my arms, or ever saw it in the garden or in Miss T.'s presence till it was some months old, when it was in the room when I entered. This dramatic incident has been introduced for purely sensational effect, and *has not the smallest particle of foundation on fact.*

I never attended anyone belonging to the place with a sprained ankle, or specially waited on Miss T. with a report of any case. I have previously, in my second letter to Dr. Quain, described what took place on the very first time I visited Miss T.'s house or had any communication with any member of her

establishment, the correctness of which statement I am ready to vouch for on oath if necessary, as also that neither at that nor any other time did I hear Dr. Quain mentioned either as friend or adviser. I was first sent for by this patient in January, 1871. I was at church, it being Sunday evening. The messenger was informed that I should be at home in half an hour. Just as I returned he came a second time to say that Miss T. would not trouble me that night, but would be obliged by my calling about noon next day. On my way there next morning I met a man, who said he was sent to inform me that I need not call, as Dr. Graham was in attendance. What had led to this strange alteration I had *then* no means of knowing. It is evident that the lady recognised her undoubted right to change her medical adviser, especially, I imagine, if he had been chosen for her, or why was it that on this occasion Mr. James's services were not in requisition? He shows that he had been the attendant up to that time since 1866; but why in and from 1871 the "personal friend" should have persistently ignored Mr. James does not appear. In the absence of authentic information, one is driven to fall back on the "will of her own," which the lady certainly possessed, though she may perhaps in the presence of others have been sometimes wanting in moral courage.

As the inquiries with which Mr. Kelly concludes his letter coincide, oddly enough, almost precisely with those of Mr. James, I may remark, in reply to both, that when I paid my last visit to the patient she was *perfectly conscious*, though I was subsequently informed that she seemed to wander. Had I seen in the evening that she did so, or was in any way worse, I should have suggested a division of responsibility. As it was, I believe the threatening of bronchitis had passed off, and though not down stairs on that day, as stated, she was on the next, and continued to be till reattacked a month or more after, a few days prior to death. I confess I was not very much alarmed at what I saw (trust notwithstanding); for I have faith in treatment at an early stage, even at 86.

What I said with regard to Dr. Quain's relationship was merely my impression at that time. I have since learnt from Dr. Graham that Dr. Quain was paid for attendance, and that Dr. Graham regarded himself strictly as Dr. Quain's representative, and was in the habit of writing to Dr. Quain when he saw the patient. Though this explains a good deal, it does not in any way, as far as I can see, improve Dr. Quain's position with reference to myself. In taking the step he did in dismissing me from the case, I considered that he took upon himself the sole responsibility of such a course. In consenting to act for Dr. Quain I hold Dr. Graham perfectly blameless, and my desire was to omit all names from the controversy, save Dr. Quain's and my own.

My sole regret in the matter is that Dr. Quain should not have thought proper to have adopted a more civil course in dismissing me from the case, or in acknowledging my letters. Indeed I cannot help thinking that even after your very fair and clear verdict had been recorded in my favour, his case would have been better served by an admission of his error than it has been by the impetuous ardour of friends, one of whom might, under ordinary circumstances, have found that his zeal had been in excess of his discretion, and that it was not wise or profitable to make statements and imply charges which he could not substantiate.

I am, Sir, your obliged and faithful servant,

Weybridge, Aug. 31st, 1874. GEORGE J. SEALY.

*** As intimated last week, we cannot insert any more communications on this subject, and the more so as all parties have now had ample opportunities for laying the matter before the profession.—ED. L.

M.D.—The Dublin diploma in State Medicine would not merely be sufficient, but it would be a trump card. The Students' Number of THE LANCET, if it does not contain all the information "M.D." wants, will indicate the official sources to which he should apply.

Enquirer, (Manchester.)—Decidedly poisonous.

Mr. Burroughs.—From ten grains upwards, dissolved in water. It should be given cautiously.

Mr. Brassnutt.—We never recommend a particular surgeon.

TREATMENT OF FAVUS.

To the Editor of THE LANCET.

SIR,—Having lived for some years in a part of the country where FAVUS capitis was a very common disease, and having been medical officer to the hospital of the town in which I resided, I have had ample opportunity of forming an estimate as to the value of the various methods of treatment adopted in cases of that disease. The conclusion come to was that epilation is the only means by which a permanent cure can be effected. The mode of procedure was as follows: On admission the hair was cut as short as possible, then the crusts removed by linseed-meal poultices smeared over with olive oil. After the complete removal of the crusts, the head was shaved, and olive oil kept applied to the scalp. Upon the hairs attaining sufficient length to be caught hold of by a small-pointed forceps, epilation was commenced, a small portion of the scalp being cleared every day till the whole had been gone over. Sometimes the same place would have to be gone over two or three times before all the diseased hairs were removed. The hairs generally come out easily, but, if they are firm, painting the night before that portion of the scalp to be gone over next day with a weak solution of the perchloride of mercury or sulphurous acid gas will remove this difficulty. During the whole time of treatment, oil (olive, almond, or cod-liver) ought to be kept constantly applied to the scalp (on lint covered with a cap of oiled silk). Cod-liver oil and iron ought to be exhibited internally in the case of delicate children. Cases treated otherwise than by epilation invariably returned to hospital as bad as ever; whilst, on the other hand, I never saw a return of the disease in any case treated by epilation. After a little general instruction any person can remove the hairs. I am sure that, if your correspondent, Mr. Howley, give this method a fair trial, and persevere with it, he will be highly gratified by the results.

I am, Sir, yours &c.,

August 31st, 1874. G. WRIGHT HUTCHINSON, M.D.

To the Editor of THE LANCET.

SIR,—I beg to inform your correspondent, Mr. Thos. Howley, that he will be able to cure his patients suffering from the above troublesome affection by the prolonged use of the Turkish bath (say from forty to fifty minutes) at 150° F., provided that there be no obstruction to the general circulation, followed by free washing with carbolic acid soap. At least I have seen cases cured by this treatment when almost all others failed.

Yours obediently,

London, August 31st, 1874. J. CARTWRIGHT REED, M.D., &c.

G. W.—We should say twenty-five pounds would be a fair charge, taking as our basis one guinea for the first attendance, and subsequent visits at five shillings each.

Mr. Thompson.—1. Roberts's work.—2. Tanner's work.

S. G.—Consult a medical man.

THE SYSTEM OF APPRENTICESHIP.

To the Editor of THE LANCET.

SIR,—Among the many old customs that are gradually disappearing the medical profession, I think none is more greatly to be regretted than the old-fashioned system of apprenticeship. There are many reasons which cause this to be regretted, and I will only mention three of the advantages that are lost by its falling into disuse.

First. Under the old-fashioned method, everyone being compelled to "serve his time" before entering the hospital, the student had an opportunity of acquiring a knowledge of the use, composition, and doses of the different drugs used in the surgery, and of the general routine of private practice that he could not gain in a hospital; and as many—nay most—of our medical students become private practitioners, this knowledge is of great use to them in after-life. The treatment pursued in the hospitals differs so widely from that pursued in general practice, that a skilful hospital surgeon would most likely be quite at sea if placed unexpectedly in the position of a general practitioner; and yet how many of our medical students, after passing the necessary examinations, settle down to private practice without the least idea that it is conducted differently to the hospital plan. These men will be continually falling into mistakes, from fancying that private and parish patients are to be treated on the same principle as the hospital patients. Now, according to the old system, a student during his five years' apprenticeship got a good practical insight into general practice, and this insight he would find very useful when he commenced to practise on his own account.

The second advantage is this: A student who has "served his time" with a surgeon would be better able to utilise the time spent at the hospital. He would enter the hospital with his mind prepared to receive the lessons that would be taught him; the lectures would not (as is now too often the case) be unintelligible from the necessary use of technical terms; and he would be able to follow the lecturer not only with his ears, but also with his understanding. Such a man as this would, if gifted with average abilities and application, and a love for his profession, stand a very fair chance of taking a high place on the medical ladder; at any rate, it is certain his knowledge would be *thorough*. Notice the difference in the present day. A youth, desiring to enter the medical profession, passes the preliminary examination necessary before commencing his professional studies; he can then at once enter the hospitals. Here everything is strange to him; the number of diseases astonish, the lectures perplex him, and for some time he struggles hopelessly to grasp something tangible out of the multitude of subjects that his mind is required to take in without any previous preparation. After a time he begins to comprehend what is going on around him, and by the help of a "coach" and hard "grinding" he passes his examinations, is qualified to practise, and settles down as a general practitioner. A great deal that he has "crammed" for his examination is immediately forgotten. In three years (for the first is a year of preliminary study) he is expected to cram sufficient knowledge into his head to enable him to treat every disease that he may meet with. He is examined in, perhaps, half a dozen subjects—that is, he is asked, perhaps, six questions in each subject, and by his answers to these questions is decided whether he is fit to be entrusted with the lives of his fellow-creatures or not. Had he served an apprenticeship, he would not have gone to the hospital unprepared, and would be very much the gainer in the end by the time thus spent.

Thirdly. A student, by spending some time with a surgeon before commencing his hospital studies, would see many diseases which are of common occurrence in private practice, but are seldom, if ever, seen at a hospital. A student may gain distinction at a hospital; he may carry away with him valuable prizes and numerous certificates; he obtains his diploma, and settles down as a general practitioner; but, in spite of his distinction and prizes, he may daily be puzzled to treat many simple and common disorders of which he has scarcely seen anything before, and is thus deficient in a most important branch of his medical education.

In conclusion, I would suggest that each student should be required to pass at *least* eighteen months with a gentleman engaged in general practice either before or after passing the preliminary examination; in the latter case the time might (as now) be taken off the four years' attendance required at the hospitals, and by this plan I am sure the medical student would, on obtaining his diploma, be far more competent to undertake the duties of his profession, and the status of professional men would be much raised thereby. I am, Sir, yours respectfully,

August 25th, 1874. AN OLD APPRENTICE.

A CASE OF HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—At the present time the following case will probably be considered interesting.

Mrs. M——, aged fifty-five, was returning from Tooting to her house on July 16th, when a large Newfoundland dog jumped up, bit her in the face, and knocked her down. She was bitten on the inside of the upper lip, on the left, and grazed under the eye. On her arrival home, finding the wound bled profusely, she applied warm fomentations, but neglected to have it cauterised. On Saturday, August 1st, sixteen days afterwards, she had no inclination to eat her dinner, and complained of weariness, shivering, and constant gaping. She went to bed about 9 P.M., without having partaken of any nourishment, and slept well. In the morning she told her husband her throat was sore, and she was unable to swallow. At 10 A.M. on Aug. 3rd I was sent for, and found her in bed. On inquiry she told me she had a cold and sore-throat. Upon examination externally I could find nothing the matter, her pulse being natural and free from all feverish symptoms. I then directed my attention to the interior of her mouth and throat. I still could not see anything to account for her complaining of being unable to swallow; and on offering her a glass of water, she drew violently back, and a spasm came over her neck and face such as I had never before witnessed; the face became livid and congested; the eyeballs seemed nearly forced from their sockets; the muscles of her neck were fearfully convulsed, with every appearance of immediate suffocation. It, however, quickly passed, and she soon became calm and herself again. It at once crossed my mind that the disease was hydrophobia, and after some hesita-

tion she told me the story of the dog. I visited her again two hours after, and found her calm and collected. I inquired what nourishment she had taken, but found nothing had been given. I repeated the experiment of the water, and it produced the same symptoms as before. She continued during the day perfectly quiet if not disturbed. Morphia injections and large doses of chloral had no effect whatever with regard to allaying the spasms. Injections of beef-tea and port wine were frequently given. Liniment of belladonna and camphor was freely applied to the throat, which appeared to give some relief. On Aug. 4th I saw her at 9 A.M. I found no material difference in her appearance. She had a few snatches of sleep during the night, but nothing to eat or drink. Pulse a little weaker; temperature of body 97°; breathing natural. I administered chloroform, but could only produce partial insensibility. I then forced some beef-tea into her mouth, and in a minute or two the same horrible spasm came on again, threatening strangulation. It, however, soon passed, and the effects of the chloroform had also gone, and she once more became composed. My friends, Messrs. Hearnden and Atkins, of Sutton, kindly saw the case with me, and agreed it was hydrophobia. Grain doses of morphia were given every three hours during the night, but giving only a few minutes' sleep. On Aug. 5th I saw her early. She was perfectly rational, but weaker, flushed in the face, and her usual composure had gone, with signs of irritability and restlessness. Tongue dry and very corrugated, but frothy; saliva constantly exuded from the corners of her mouth, with continual inclination to spit. I almost forced her during the day at frequent intervals to take beef-tea and brandy, but could only get a few drops between the lips, always producing the same symptoms. At night I found her weaker, but still perfectly sensible. Beef-tea and chloral were given per rectum, and two grains of morphia were injected in the arm, which remedies produced no rest during the night. On Aug. 6th I saw her at 8 A.M., and found a marked change in her, having an anxious, sallow, and cadaverous appearance. Temperature lower and pulse weaker, but quite sensible. She implored me not to touch her or ask her to take anything. Walking quickly across the room, closing the door sharply, or touching the bedclothes would immediately cause the same dreadful spasm. She refused to allow the nurse to use the enema syringe. During the day she was restless, snappish, and suspicious, fearing anyone would touch her; but while in the spasm she violently clung to her husband for support, with great inclination to bite anything in her way; in fact, she caught his hand, and bit it through the skin on the back, immediately remarking that she could not help it. In the evening Messrs. Hearnden and Atkins saw her again, and concurred with me that she could not last many hours. About midnight she asked for some beer. She took the glass in her hand, and drank it off without any trouble or return of the spasm; but on repeating it an hour after, it brought on a spasm of increased violence. She then very rapidly got weaker, and died from exhaustion at 4 A.M. on Aug. 7th, being perfectly conscious to the last. An inquest was held, but no post-mortem allowed.

I remain, Sir, yours, &c.,

Lower Tooting, Aug. 31st, 1874. THOMAS TRENT, M.R.C.S.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Richardson, London; Dr. Sydney Ringer, London; Mr. Farquharson, London; Deputy Inspector-General Cameron; Mr. Messent, London; Dr. Page, Newcastle; Mr. North, York; Mr. Sargeant, London; Mr. S. O. Bishop; Dr. Matthews Duncan, Edinburgh; Dr. Spence, Denholm; Mr. Farrage, Chippenham; Dr. Ryley, Doddington; Dr. C. Reed, London; Dr. Willing, Southend; Mr. Greenfield, London; Mr. Adey, London; Mr. Burroughs, Bridgwater; Mr. Tallack, London; Dr. G. C. Jones; Mr. Crabtree, Manchester; Dr. Tyndale Watson, London; Mr. Ellis, Newcastle-on-Tyne; Mr. Willis, Sutton-Scotney; Mr. Snell, Nottingham; Mr. Brennan, Dublin; Mr. Napier, Exeter; Dr. Foster, Guernsey; Mr. Alderson, London; Dr. Foster, Guernsey; Dr. Dougall, Glasgow; Mr. Trent, London; Mr. Brassnutt, Liverpool; Dr. Mulvaney; Mr. E. F. Whitaker, Bampton; Mr. Thompson, Brentwood; Mr. Reoch, Newcastle; Mr. Molony, Ennis; Dr. Jolly, Birmingham; Mr. Morgan, London; Mr. Gee; Mr. Lucas, London; Mr. Knight, Northampton; Mr. Smee, Eynsham; Mr. Meehan, Southwark; Dr. Kerswill, Looe; Mr. Pryde, Glasgow; Mr. M'Kens, Calcutta; Dr. Popham, London; Mr. Forbes, Glasgow; Mr. Eddison, Leeds; Surgeon-Major Moore, Sierra Leone; Mr. Barford, Wokingham; Mr. Garnham, Ripley; Mr. Hopkins, Llantrissant; Messrs. Craven & Co., Huddersfield; Mr. Eddowes, Pontesbury; Dr. Yellowlees, Bridgend; Dr. Bennett, York; Dr. Frodsham, Streatham; Mr. Sharman, Norwood; Mr. Thomas, Narberth; Dr. Bailey, Witham; Mr. Watson, Norwich; Dr. Grant, Longton; Dr. Cox; J. B. R.; M.R.C.S.; Nolens; Enquirer; A Friend to Fair Play; M.D.; A Constant Reader; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from — Mr. Holman, East Hothley; Mr. Griffith, Hastings; Mr. Mair, Morriston; Mr. Barnett, Leominster; Mr. Istance, Risca; Mr. Curtis, Hastings; Mr. Brickwell, Amersham; Mr. Brooke, Langport; Mr. Boreham, Winchester; Dr. Allen, Hastings; Mr. Barlow, Kingsland; Rev. W. East, Newcastle; Mr. Rugg, London; Mr. Howson, Hull; Mr. Whitton, Blackburn; Mr. Winckworth, Topsham; Mr. Bruce, Slough; Mr. Hall, Ince; Mr. Leeming, Kendal; Dr. Dixie, Rugby; Mr. Jones, Towyn; Dr. Heffernan, Spennymoor; Mr. Jones, Ipswich; Mr. Ellis, Morley; Dr. Redfern; Mr. Wright, Birmingham; Dr. Carter, Twickenham; Mr. Waddell, Tombland; Mr. Shaw, Bridgnorth; Mr. Donnelly, Demerara; Mr. Taylor, Cannock; Dr. Eltchie, Otley; Mr. Clarke, Birmingham; Mr. Garforth, Portmahon; Mrs. Raher, Ipswich; Mr. Attwater, Whickham; Dr. Akerman, London; Mr. Robson, Houghton-le-Spring; Mr. Copestake, Brailford; Messrs. Grindlay & Co., Calcutta; Mr. MacArthur, Southwold; Mr. Dweller, Kirkham; Mr. Vowill, Charlton Kings; Mr. Matason, Winchfield; Mr. Bruce, Stoke-on-Trent; Mr. Caff, Bitterne; Mr. Le Page, Brandon; Mr. Williams, Sunderland; Dr. Davies, Ebbw Vale; Mr. Smith, Burton; Mr. Redfern, Syston; Mr. M'Millan, Hull; X. I., St. Albans.

Accrington Times, Cork Constitution, Manchester Guardian, Nottingham and Midland Counties Express, Newcastle Daily Chronicle, Chemical World, Isle of Man Times, Welshman, Liverpool Post, Sunday Times, Derbyshire Courier, Yorkshire Post, Leeds Daily News, Lincoln Gazette, Surrey Advertiser, and *St. Pancras Gazette* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, SEPT. 3RD, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Aug. 28	29·33	N.W.	55	58	99	70	50	0·04	Cloudy
„ 29	29·90	W.	56	59	99	67	49	...	Cloudy
„ 31	29·90	W.	58	62	105	73	57	0·11	Cloudy
Sept. 1	29·82	W.	63	69	103	74	57	0·04	Cloudy
„ 2	29·97	W.	57	60	100	72	53	0·07	Cloudy
„ 3	30·03	S.W.	58	61	...	...	53	...	Overcast

Medical Diary for the ensuing Week.

Monday, Sept. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 9.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Thursday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 10.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 12.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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